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APPENDIX TO THE JOURNALS

OF THE

SENATE AND ASSEMBLY

OF THE

TWENTY-SEVENTH SESSION

OF THE

LEGISLATURE OF THE STATE OF CALIFORNIA.

Volume VII.

SACRAMENTO: .
STATE OFFICE : : : P. L. SHOAFF, SUPT. STATE PRINTING.
1887.

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CONTENTS.

1—Seventeenth Annual Report of the Insurance Commissioner for the State of California, 1884.

2—Eighteenth Annual Report of the Insurance Commissioner for the State of California, 1885.

3—Second Biennial Report of the Bureau of Labor Statistics of the State of California, for the years 1885 and 1886.

SEVENTEENTH ANNUAL REPORT

OF THE

INSURANCE COMMISSIONER

FOR THE

STATE OF CALIFORNIA.

YEAR ENDING DECEMBER 31, 1884.

SACRAMENTO:
STATE OFFICE . . . . JAMES J. AYERS, SUPT. STATE PRINTING.
1885.

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PRELIMINARY.

Seventeenth Annual Report of the California Insurance Commissioner.

Office of Insurance Commissioner,
San Francisco, January 29, 1885.

To his Excellency George Stoneman, *Governor of the State of California:*

I have the honor to submit, herewith, the annual preliminary report of this department, giving the amount of fire, marine, and life insurance business transacted in the State during the year ending December 31, 1884, together with the names and locations of the respective companies:

FIRE INSURANCE.

Amount written	$296,648,973 00
Premiums on same	4,538,062 44
Losses paid	1,295,594 48
Ratio of losses to premiums	28.5

MARINE INSURANCE.

Amount written	$119,287,744 00
Premiums on same	1,433,138 20
Losses paid	468,410 86
Ratio of losses to premiums	32.7

TOTAL FIRE AND MARINE.

Amount written	$415,936,717 00
Premiums on same	5,971,200 64
Losses paid	1,764,005 34

Apportioned as follows:

TO COMPANIES OF THIS STATE—FIRE INSURANCE.

Amount written	$72,302,875 00
Premiums on same	1,029,944 42
Losses paid	332,273 44

MARINE INSURANCE.

Amount written	$21,711,745 00
Premiums on same	366,936 81
Losses paid	145,593 38

TO COMPANIES OF OTHER STATES—FIRE INSURANCE.

Amount written	$104,735,566 00
Premiums on same	1,726,581 08
Losses paid	469,919 81

MARINE INSURANCE.

Amount written	$8,615,872 00
Premiums on same	161,872 59
Losses paid	90,676 17

TO COMPANIES OF FOREIGN COUNTRIES—FIRE INSURANCE.

Amount written	$119,610,532 00
Premiums on same	1,781,536 94
Losses paid	493,401 23

MARINE INSURANCE.

Amount written	$88,960,127 00
Premiums on same	904,328 80
Losses paid	232,141 31

Since the date of the last annual report from this office, the following named companies have been admitted to transact insurance business in this State:

Irving	New York.
North American	Boston.
People's	Pittsburgh.
New York Bowery Fire	New York.
Straits	Singapore.
Germania	New Orleans.
United Fire Reinsurance	Manchester, England.
National Fire	Hartford.
Oregon Fire and Marine	Portland, Oregon.
Svea Fire and Life	Gothenburg, Sweden.
American Steam Boiler	New York.
National	Dublin, Ireland.
Hartford Steam Boiler	Hartford.
Mannheim	Mannheim, Germany.
Hartford Life and Annuity	Hartford.
American Surety	New York.

The following named companies have ceased to do business in the State:

Buffalo German	Buffalo.
Commercial Fire	New York.
Irving	New York.
Manufacturers' Fire and Marine	Boston.
Shoe and Leather	Boston.
Star Fire	New York.
Confiance	Paris.
London and Northwestern	Manchester, England.

Very respectfully, your obedient servant,

GEORGE A. KNIGHT,
Insurance Commissioner.

TABLE No. 1.

Showing the business of the California Insurance Companies for the year 1884—California business.

NAME.	Location.	FIRE.			
		Risks Written.	Premiums on same.	Losses Paid.	Ratio of Losses to Premiums.
California	San Francisco	$6,673,150 00	$87,994 74	$27,120 64	30.8
Commercial	San Francisco	4,638,576 00	72,627 60	28,055 94	38.6
Fireman's Fund	San Francisco	9,253,956 00	134,823 60	35 954 25	26.7
Home Mutual	San Francisco	14,772,212 00	216,395 19	75,507 52	34.9
Oakland Home	Oakland	8,217,150 00	107,682 97	40,883 72	37.9
State Investment	San Francisco	8,666,125 00	118.750 66	31,282 05	26.3
Sun	San Francisco	4,290,627 00	62,883 17	23,015 66	36.6
Union	San Francisco	6,638,664 00	84,311 05	29,705 38	35.2
Western Fire and Marine	San Francisco	9,152,415 00	144,475 44	40,748 28	28.2
Totals		$72,302,875 00	$1,029,944 42	$332,273 44	32.3

TABLE No. 1—Continued.

NAME.	Location.	MARINE.			
		Marine and Inland.		Marine Time.	
		Risks Written.	Premiums on same.	Risks Written.	Premiums on same.
California	San Francisco	$1,739,576 00	$19,439 59	$476,466 00	$41,006 29
Commercial	San Francisco	728,614 00	6,373 48	196,633 00	17,209 23
Fireman's Fund	San Francisco	4,866,364 00	58,910 18	1,023,555 00	68,034 99
Home Mutual	San Francisco				
Oakland Home	Oakland				
State Investment	San Francisco				
Sun	San Francisco	2,130,063 00	21,538 42	476,325 00	38,364 82
Union	San Francisco	9,767,581 00	66,535 65	306,568 00	29,524 16
Western Fire and Marine	San Francisco				
Totals		$19,232,198 00	$172,797 32	$2,479,547 00	$194,139 49

NAME.	Location.	MARINE.			
		Total Risks Written.	Total Premiums on same.	Losses Paid.	Ratio of Losses to Premiums.
California	San Francisco	$2,216,042 00	$60,445 88	$19,409 52	32.1
Commercial	San Francisco	925,247 00	23,582 71	19,507 96	82.7
Fireman's Fund	San Francisco	5,889,919 00	126,945 17	37,905 38	29.1
Home Mutual	San Francisco				
Oakland Home	Oakland				
State Investment	San Francisco			1,007 72	
Sun	San Francisco	2,606,388 00	59,903 24	28,293 42	47.2
Union	San Francisco	10,074,149 00	96,059 81	39,469 38	41.1
Western Fire and Marine	San Francisco				
Totals		$21,711,745 00	$366,936 81	$145,593 38	39.6

TABLE No. 2.

Showing the Amount and Description of Risks in Force December 31, 1884, of California Insurance Companies—California business.

NAME.	Location.	FIRE.		MARINE AND INLAND.	
		Risks.	Premiums.	Risks.	Premiums.
California	San Francisco	$7,761,210 00	$107,319 52	$196,892 00	$5,205 31
Commercial	San Francisco	4,156,016 00	69,601 12	88,799 00	2,113 92
Fireman's Fund	San Francisco	10,074,444 00	148,070 93	600,564 00	13,815 50
Home Mutual	San Francisco	20,743,498 00	286,364 87		
Oakland Home	Oakland	7,774,357 00	106,066 20		
State Investment	San Francisco	8,843,520 00	122,375 45		
Sun	San Francisco	3,840,390 00	55,545 18	383,868 00	4,652 33
Union	San Francisco	7,453,938 00	91,683 45	592,892 00	10,409 65
Western Fire and Marine	San Francisco	8,421,067 00	133,896 13		
Totals		$79,068,440 00	$1,120,922 85	$1,863,015 00	$36,196 71

NAME.	Location.	MARINE TIME.		TOTALS.	
		Risks.	Premiums.	Amount of Risks in Force.	Premiums on same.
California	San Francisco	$467,241 00	$40,234 45	$8,425,343 00	$152,759 28
Commercial	San Francisco	201,633 00	17,398 45	4,446,448 00	89,113 49
Fireman's Fund	San Francisco	838,031 00	70,636 78	11,513,039 00	232,523 21
Mome Mutual	San Francisco			20,743,498 00	286,364 87
Oakland Home	Oakland			7,774,357 00	106,066 20
State Investment	San Francisco			8,843,520 00	122,375 45
Sun	San Francisco	460,325 00	37,816 81	4,684,583 00	98,014 32
Union	San Francisco	309,350 00	25,024 75	8,356,180 00	127,117 85
Western Fire and Marine	San Francisco			8,421,067 00	133,896 13
Totals		$2,276,580 00	$191,111 24	$83,208,035 00	$1,348,230 80

TABLE NO. 3.

Showing the Fire business of Companies of other States for the year 1884—California business.

NAME.	Location.	Amount Written.	Premiums on same.	Losses Paid.	Ratio of Losses to Premiums.
Ætna	Hartford	$8,932,229 00	$136,692 39	$31,121 15	22.8
Agricultural	Watertown, New York	2,222,537 00	25,284 91	4,963 92	19.6
Allemannia	Pittsburgh	562,525 00	11,053 85	3,240 02	29.3
Amazon	Cincinnati	1,116,438 00	22,250 87	10,355 90	46.5
American	Newark	1,329,184 00	14,621 16	1,466 85	10.0
American Central	St. Louis	3,127,797 00	45,464 80	14,563 37	32.0
American Fire	Philadelphia	1,790,857 00	36,341 35	2,444 34	6.7
Boatman's Fire and Marine	Pittsburgh	504,478 00	10,769 96	4,172 49	38.8
Citizens'	St. Louis	801.325 00	12,515 66	2,875 38	22.9
Citizens'	New York	1,620,228 00	18,499 52	321 27	1.7
Commercial Fire	New York	974,968 00	18,650 88	5,680 65	30.4
Connecticut	Hartford	3,441.444 00	51,658 23	10,349 56	20.0
Continental	New York	2,192,876 00	33,463 01	10,520 39	31.4
Eliot	Boston	555,548 00	10,982 43	1,085 96	9.8
Farragut Fire	New York	199,700 00	2,645 28	639 63	24.2
Fire Association of Philadelphia	Philadelphia	1,810,051 00	28,196 72	15,144 78	53.7
Firemen's	Baltimore	611,708 00	9,680 09	1,326 47	13.7
German	Freeport, Illinois	1,243,562 00	27,980 16	8,116 84	29.0
German-American	New York	3,182,175 00	50,333 75	16,426 56	32.6
German Fire	Pittsburgh	1,015.813 00	18,790 90	5,974 20	31.8
Germania	New York	1,722,075 00	25,171 80	3,791 20	15.1
Germania	New Orleans	212,779 00	4,610 35	625 20	13.6
Girard	Philadelphia	988,693 00	14,303 40	6,026 28	42.1
Glen's Falls	Glen's Falls, New York	1,082,164 00	19,314 63	5,881 26	30.4
Hanover	New York	3,240,456 00	36,578 17	1,965 53	5.4
Hartford	Hartford	8,296,965 00	117,370 57	25,533 06	21.8
Home	New York	5,964,866 00	79,914 30	15,387 40	19.3
Howard	New York	516,537 00	11,436 14	3,916 85	34.3
Insurance Company of North America	Philadelphia	3,171,686 00	48,414 85	18,743 43	38.7
Insurance Company of the State of Pennsylvania	Philadelphia	496,446 00	8,775 86	5,371 59	61.2
Irving	New York	710,185 00	12,008 46	4,677 06	38.8
Manufacturers' Fire and Marine	Boston	3,433,423 00	70,201 07	37,290 84	53.1
Mechanics' Fire	Brooklyn	443,233 00	7,670 59	815 61	10.6
Merchants'	Newark	1,088,382 00	20,461 58	7,215 10	35.3
National Fire	New York	534,768 00	9,351 33	949 09	10.1

National Fire	Hartford	524,649 00	6,657 45	47 96	.7
New Hampshire Fire	Manchester, New Hampshire	638,568 00	13,002 02	1,496 86	12.4
New Orleans Insurance Association	New Orleans	1,923,470 00	41,939 51	16,697 45	39.8
New York Bowery Fire	New York	484,779 00	8,648 25	100 00	1.2
Niagara	New York	1,362.328 00	25,729 69	7,083 90	27.5
North American	Boston	419,520 00	7,327 57	67 89	.9
Northwestern National	Milwaukee	787,803 00	11,020 10	996 15	9.0
Oregon Fire and Marine	Portland	397,132 00	10,065 82	None.	
Orient	Hartford	1,004,813 00	19,038 90	5,335 11	28.0
Pacific Fire	New York	1,531,909 00	22,341 87	6,884 48	30.8
Pennsylvania	Pittsburgh	498,482 00	10,849 38	4,852 39	44.7
Pennsylvania Fire	Philadelphia	1,798,934 00	30,723 20	11,862 38	38.6
People's	Pittsburgh	237,604 00	5,050 91	979 53	19.4
Phenix of Brooklyn	New York	7,975,524 00	178,350 26	44,083 42	24.7
Phœnix	Hartford	5,847,647 00	78,547 07	15,387 40	19.6
Prescott	Boston	419,521 00	7,327 57	67 89	.9
Providence-Washington	Providence, Rhode Island	1,093,597 00	21,803 27	7,307 56	33.5
St. Paul	St. Paul	1,003,987 00	15,076 39	3,032 76	20.1
Security	New Haven	477,169 00	8,921 71	252 59	2.8
Shoe and Leather	Boston	No report.			
Springfield Fire	Springfield, Mass.	2,263,924 00	40,071 45	12,405 25	30.9
Star Fire	New York	206,899 00	5,486 98	7,904 45	144.1
Teutonia	New Orleans	704,066 00	14,424 13	8,090 38	56.1
Traders'	Chicago	1,125,067 00	20,495 78	6,447 15	31.5
Union	Philadelphia	775,534 00	16,184 09	8,652 17	53.5
United States Fire	New York	95,000 00	1,552 00	1,151 00	74.2
Washington Fire and Marine	Boston	1,080,604 00	19,736 69	5,068 15	25.7
Williamsburg City Fire	Brooklyn	918,935 00	14,750 00	4,686 33	31.8
Totals		$104,735,566 00	$1,726,581 08	$469,919 81	27.2

TABLE No. 4.

Showing Fire Risks in California on December 31, 1884—Companies of other States..

NAME.	Location.	Risks.	Premiums.
Ætna	Hartford	$8,022,102 00	$147,079 25
Agricultural	Watertown, N. Y.	2,737,842 00	31,685 08
Allemannia	Pittsburgh	541,069 00	10,976 88
Amazon	Cincinnati	1,174,383 00	23,256 12
American	Newark	1,230,697 00	13,374 13
American Central	St. Louis	3,692,236 00	52,469 01
American Fire	Philadelphia	1,457,852 00	29,392 59
Boatman's Fire and Marine	Pittsburgh	505,636 00	10,180 03
Citizens'	St. Louis	801,325 00	12,515 66
Citizens'	New York	1,414,715 00	17,952 85
Commercial Fire	New York	925,408 00	18,296 93
Connecticut	Hartford	3,284,618 00	51,340 55
Continental	New York	2,241,737 00	35,338 57
Eliot	Boston	499,994 00	9,884 19
Farragut Fire	New York	201,700 00	2,641 13
Fire Association of Philadelphia	Philadelphia	1,970,093 00	31,604 75
Fireman's	Baltimore	637,958 00	9,260 31
German	Freeport, Ill.	1,147,515 00	25,781 17
German-American	New York	3,243,687 00	49,890 24
German Fire	Pittsburgh	1,145,388 00	19,365 84
Germania	New York	1,643,807 00	23,370 70
Germania	New Orleans	207,489 00	4,300 37
Girard	Philadelphia	1,290,865 00	17,326 42
Glen's Falls	Glen's Falls, N. Y.	1,016,521 00	18,760 15
Hanover	New York	3,220,874 00	41,215 90
Hartford	Hartford	8,046,672 00	119,742 50
Home	New York	6,281,039 00	91,795 59
Howard	New York	457,039 00	10,158 31
Insurance Co. of North America	Philadelphia	3,385,413 00	52,625 33
Insurance Co. of the State of Penn.	Philadelphia	434,527 00	7,790 53
Irving	New York	----------	----------
Manufacturers' Fire and Marine	Boston	3,370,666 00	68,341 30
Mechanics' Fire	Brooklyn	523,892 00	8,255 89
Merchants'	Newark	1,017,516 00	19,653 19
National Fire	New York	632,580 00	10,865 38
National Fire	Hartford	477,324 00	6,278 99
New Hampshire Fire	Manchester, N. H.	764,876 00	14,767 82
New Orleans Insurance Association	New Orleans	2,073,570 00	41,363 97
New York Bowery Fire	New York	468,586 00	8,518 78
Niagara	New York	1,640,919 00	24,946 11
North American	Boston	377,569 00	6,594 81
Northwestern National	Milwaukee	901,720 00	13,728 04
Oregon Fire and Marine	Portland, Or.	385,114 00	9,962 72
Orient	Hartford	728,261 00	14,397 08
Pacific Fire	New York	1,610,628 00	23,259 28
Pennsylvania	Pittsburgh	533,003 00	10,364 63
Pennsylvania Fire	Philadelphia	1,691,451 00	29,724 89
People's	Pittsburgh	227,855 00	4,721 29
Phenix of Brooklyn	New York	10,905,048 00	294,276 92
Phœnix	Hartford	6,175,822 00	90,436 27
Prescott	Boston	377,569 00	6,594 81
Providence-Washington	Providence	1,193,067 00	22,768 15
St. Paul	St. Paul, Minn.	1,138,883 00	15,926 39
Security	New Haven	410,719 00	7,107 37
Shoe and Leather	Boston	----------	----------
Springfield Fire	Springfield, Mass.	2,110,414 00	37,516 19
Star Fire	New York	161,548 00	4,872 46
Teutonia	New Orleans	660,520 00	13,761 19
Traders'	Chicago	1,146,692 00	20,768 90
Union	Philadelphia	754,161 00	15,961 17
United States Fire	New York	47,000 00	1,006 00
Washington Fire and Marine	Boston	787,099 00	15,196 99
Williamsburg City Fire	Brooklyn	827,041 00	13,275 79
Totals		$106,981,314 00	$1,864,583 85

TABLE NO. 5.

Showing the business of Fire Companies of foreign countries for the year 1884—*California business.*

NAME.	Location.	Amount Written.	Premiums on same.	Losses Paid.	Ratio of Losses to Premiums.
British America	Toronto	$1,158,875 00	$19,302 90	$10,884 23	56.4
City of London Fire	London	1,983,730 00	34,497 60	20,035 78	58.0
Commercial Union	London	9,911,687 00	148,333 48	29,318 39	19.8
Fire Insurance Association	London	5,526,425 00	92,891 81	34,412 74	37.0
Guardian	London	3,493,715 00	55,284 78	5,798 88	10.5
Hamburg-Bremen	Hamburg	6,870,875 00	85,595 36	20,787 57	24.3
Hamburg-Magdeburg	Hamburg	2,930,952 00	43,877 00	7,144 55	16.3
Helvetia Swiss Fire	St. Gall, Switzerland	3,824,019 00	54,078 95	16,472 28	30.4
Imperial	London	2,672,256 00	36,376 89	4,569 36	12.6
Lancashire	Manchester	3,530,637 00	50,239 56	17,964 80	35.8
Lion Fire	London	2,878,899 00	51,601 29	18,201 53	35.3
Liverpool and London and Globe	Liverpool	16,612,930 00	210,765 68	34,744 93	16.5
London	London	2,672,256 00	36,376 89	4,569 36	12.6
London and Lancashire	Liverpool	3,820,562 00	64,349 31	16,667 64	25.9
London and Provincial Fire	London	2,251,229 00	33,421 70	14,222 63	42.6
London and Northwestern	Manchester	1,055,891 00	19,261 11	9,279 29	48.2
Manchester Fire	Manchester	2,484,427 00	43,519 85	12,592 54	31.2
National	Dublin	440,478 00	6,554 43	None.	----------
National Fire and Marine	Dunedin, New Zealand	1,857,359 00	32,666 72	12,816 26	39.2
New Zealand	Auckland	5,312,589 00	64,439 56	19,716 90	30.6
North British and Mercantile	London	5,762,805 00	89,832 31	32,453 24	36.1
North German Fire	Hamburg	4,296,902 00	67,950 76	26,188 50	38.5
Northern	London	2,672,256 00	36,376 89	4,569 36	12.6
Norwich Union	Norwich, England	3,530,637 00	50,239 56	17,964 80	35.8
Phœnix	London	2,784,221 00	46,185 85	18,051 57	39.1
Prussian National	Stettin	1,436,648 00	22,411 00	9,649 61	43.1
Queen	Liverpool	2,672,256 00	36,376 89	4,569 36	12.6
Royal	Liverpool	3,530,637 00	50,239 56	17,964 80	35.8
Scottish Union and National	Edinburgh	2,361,598 00	35,418 33	4,701 10	13.2
South British Fire and Marine	Auckland	1,857,359 00	32,666 72	12,816 26	39.2
Svea	Gothenburg, Sweden	662,094 00	12,977 00	874 91	6.7
Transatlantic Fire	Hamburg	3,365,495 00	58,684 58	8,886 53	15.1

TABLE NO. 5—Continued.

NAME.	Location.	Amount Written.	Premiums on same.	Losses Paid.	Ratio of Losses to Premiums.
Union Fire and Marine	Christchurch, New Zealand	$1,776,081 00	$29,733 55	$10,071 65	33.8
United Fire Reinsurance	Manchester, England	190,364 00	3,173 02	538 98	16.9
Western	Toronto	1,421,388 00	25,836 05	13,900 90	53.8
Totals		$119,610,532 00	$1,781,536 94	$493,401 23	27.7

TABLE No. 6.

Showing Fire Risks in force on December 31, 1884—*Companies of foreign countries—California business.*

NAME.	Location.	FIRE.	
		Risks.	Premiums.
British America	Toronto	$1,166,094 00	$18,527 85
City of London Fire	London	2,155,722 00	35,180 01
Commercial Union	London	9,168,311 00	137,208 51
Fire Insurance Association	London	6,363,150 00	98,765 93
Guardian	London	4,507,895 00	64,471 26
Hamburg-Bremen	Hamburg	5,435,994 00	85,234 42
Hamburg-Magdeburg	Hamburg	3,512,577 00	50,769 70
Helvetia Swiss Fire	St. Gall, Switzerland	4,419,615 00	57,604 90
Imperial	London	3,001,989 00	44,554 14
Lancashire	Manchester	3,426,830 00	51,392 41
Lion Fire	London	2,122,942 00	40,915 94
Liverpool and London and Globe	Liverpool	18,097,943 00	249,550 37
London	London	3,001,989 00	44,554 14
London and Lancashire	Liverpool	3,609,195 00	63,770 60
London and Provincial Fire	London	2,648,293 00	35,809 67
London and Northwestern	Manchester	----------	----------
Manchester Fire	Manchester	2,329,383 00	42,750 23
National	Dublin	426,978 00	6,520 33
National Fire and Marine	Dunedin, New Zealand	2,087,761 00	34,317 44
New Zealand	Auckland	5,877,494 00	70,248 03
North British and Mercantile	London	6,680,997 00	100,769 02
North German Fire	Hamburg	4,562,947 00	72,160 16
Northern	London	3,001,989 00	44,554 14
Norwich Union	Norwich, England	3,426,830 00	51,392 41
Phœnix	London	3,225,203 00	53,818 80
Prussian National	Stettin	1,670,548 00	23,576 00
Queen	Liverpool	3,001,989 00	44,554 14
Royal	Liverpool	3,426,830 00	51,392 41
Scottish Union and National	Edinburgh	2,607,309 00	38,716 97
South British Fire and Marine	Auckland	2,087,761 00	34,317 44
Svea	Gothenburg, Sweden	661,094 00	12,937 00
Transatlantic Fire	Hamburg	3,655,595 00	63,538 75
Union Fire and Marine	Christchurch, N. Z.	2,009,198 00	32,495 09
United Fire Reinsurance	Manchester	190,364 00	3,231 62
Western	Toronto	1,522,140 00	27,547 65
Totals		$125,090,949 00	$1,887,147 48

TABLE NO. 7.

Showing the business of Marine Companies for the year 1884—California business.

NAME.	Location.	Amount Written.	Premiums on same.	Losses Paid.	Ratio of Losses to Premiums.
Alliance Marine	London	$2,770,340 00	$25,589 14	$3,168 35	12.4
Baloise	Basle, Switzerland	5,007,374 00	24,961 64	7,531 71	30.2
British and Foreign Marine	Liverpool	6,467,064 00	93,519 59	43,835 00	46.9
Boston Marine	Boston	572,766 00	7,615 67	None.	------------
Canton	Hong Kong	4,846,250 00	44,267 29	6,870 47	15.1
China Traders'	Hong Kong	1,879,630 00	8,616 35	None.	------------
Chinese	Hong Kong	2,101,689 00	12,115 41	7,975 07	65.8
Commercial Union	London	3,030,126 00	32,848 32	12,731 95	38.5
Danube	Vienna	366,360 00	3,077 70	1,317 76	42.8
Fonciere	Paris	1,959,953 00	19,293 30	5,461 82	28.3
Globe Marine	London	215,199 00	2,626 62	189 24	7.2
Great Western	New York	4,926,312 00	91,377 22	64,124 53	70.2
Helvetia Marine	St. Gall, Switzerland	5,207,374 00	24,961 64	7,531 71	30.2
Insurance Company of North America	Philadelphia	1,124,839 00	28,264 47	9,589 18	33.9
International Marine	Liverpool	512,114 00	7,420 00	None.	------------
London Assurance	London	2,770,340 00	25,589 14	3,168 35	12.4
London and Provincial Marine	London	446,658 00	7,280 70	None.	------------
Magdeburg General	Magdeburg, Germany	1,447,125 00	11,024 40	3,620 75	32.8
Mannheim	Mannheim, Germany	5,250 00	128 25	None.	------------
Man On	Hong Kong	1,994,911 00	11,505 10	None.	------------
Maritime	Liverpool	654,365 00	12,227 05	1,599 23	13.1
National Fire and Marine	Dunedin	871,472 00	28,802 05	13,069 75	45.0
National Marine	London	573,114 00	5,276 65	None.	------------
New Orleans Insurance Association	New Orleans	609,563 00	7,161 30	2,350 20	32.8
New Zealand	Auckland	3,600,374 00	30,133 85	4,895 66	16.3
North China	Shanghai	5,273,797 00	30,180 64	3,662 00	12.1
On Tai	Hong Kong	826,155 00	4,634 10	None.	------------
Providence-Washington	Providence	1,060,567 00	25,257 13	12,164 11	48.1
Reliance Marine	Liverpool	417,759 00	8,857 41	1,458 90	16.5
St. Paul	St. Paul, Minnesota	321,825 00	2,196 80	2,448 15	111.4
Sea	Liverpool	1,558,047 00	32,382 34	1,825 00	5.6
South British Fire and Marine	Auckland	871,472 00	28,802 05	13,069 75	45.0
Standard Marine	Liverpool	77,925 00	1,447 83	None.	------------
Straits	Singapore	345,375 00	5,442 91	None.	------------

Switzerland Marine	Zurich	5,207,375 00	24,961 64	7,531 72	30.2
Thames and Mersey	Liverpool	11,408,307 00	159,449 00	17,256 00	10.9
The Marine	London	2,142,738 00	44,877 70	37,355 37	83.2
Transatlantic Marine	Berlin	6,540,512 00	46,607 41	15,289 89	32.8
Union Fire and Marine	Christchurch, New Zealand	588,806 00	19,409 99	5,057 38	26.1
Union Insurance Society	Hong Kong	2,425,586 00	25,874 65	50 00	.02
Union Marine	Liverpool	629,365 00	11,682 98	1,606 48	13.8
Universal Marine	London	1,926,520 00	7,563 33	None.	
Yangtsze	Shanghai	1,793,306 00	20,890 63	5,012 00	23.9
Totals		$97,575,999 00	$1,066,201 39	$322,817 48	30.3

TABLE No. 8.

Showing Marine Risks in force on December 31, 1884—*California business.*

NAME.	Location.	MARINE.	
		Risks.	Premiums.
Alliance Marine	London	$760,772 00	$12,179 63
Baloise	Basle, Switzerland	140,940 00	2,488 25
British and Foreign Marine	Liverpool	2,309,278 00	39,373 15
Boston Marine	Boston	85,575 00	4,033 10
Canton	Hong Kong	658,791 00	15,219 12
China Traders'	Hong Kong	282,779 00	1,213 30
Chinese	Hong Kong	194,137 00	3,104 65
Commercial Union	London	690,571 00	11,338 77
Danube	Vienna	20,630 00	277 00
Fonciere	Paris	208,370 00	2,985 45
Globe Marine	London	40,000 00	607 62
Great Western	New York	756,236 00	50,635 19
Helvetia Marine	St. Gall, Switzerland	140,940 00	2,488 25
Insurance Co. of North America	Philadelphia	259,786 00	12,775 97
International Marine	Liverpool	105,819 00	1,776 00
London Assurance	London	760,772 00	12,179 63
London and Provincial Marine	London	178,406 00	3,635 81
Magdeburg General	Magdeburg	55,349 00	677 01
Mannheim	Mannheim, Germany	5,250 00	128 25
Man On	Hong Kong	357,767 00	2,345 29
Maritime	Liverpool	225,957 00	4,574 85
National Fire and Marine	Dunedin	251,406 00	19,337 30
National Marine	London	39,377 00	672 69
New Orleans Insurance Association	New Orleans	78,932 00	1,977 10
New Zealand	Auckland	199,196 00	1,365 27
North China	Shanghai	311,531 00	3,774 54
On Tai	Hong Kong	114,850 00	629 66
Providence-Washington	Providence, R. I.	205,738 00	12,089 42
Reliance Marine	Liverpool	108,436 00	2,386 34
St. Paul	St. Paul, Minnesota	6,960 00	116 20
Sea	Liverpool	521,836 00	10,954 87
South British Fire and Marine	Auckland	251,406 00	19,337 30
Standard Marine	Liverpool	10,000 00	180 00
Straits	Singapore	230,123 00	4,466 25
Switzerland Marine	Zurich	140,941 00	2,488 26
Thames and Mersey	Liverpool	4,820,270 00	75,890 00
The Marine	London	742,322 00	16,044 67
Transatlantic Marine	Berlin	209,263 00	2,384 80
Union Fire and Marine	Christchurch, N. Z.	225,718 00	14,924 88
Union Insurance Society	Hong Kong	599,411 00	10,753 92
Union Marine	Liverpool	225,957 00	4,574 85
Universal Marine	London	116,460 00	1,822 73
Yangtsze	Shanghai	271,385 00	4,123 41
Totals		$17,919,643 00	$394,330 75

TABLE No. 9.

Showing new Policies written during the year, Policies renewed, and amount of Policies in force on December 31, 1884, of Life Insurance Companies doing business in California—California business.

NAME.	LOCATION.	NEW POLICIES WRITTEN.			POLICIES RENEWED.			POLICIES IN FORCE DECEMBER 31, 1884.		Losses and Endowments Paid.
		Number.	Amount.	Premium.	Number.	Amount.	Premium.	Number.	Amount.	
Pacific Mutual Life	San Francisco	268	$684,760 00	$37,794 24	1,721	$4,481,053 00	$184,025 14	1,985	$5,152,313 00	$91,448 00
Ætna Life	Hartford	5	5,000 00	352 90	242	684,669 00	26,270 83	478	925,464 00	24,262 00
Brooklyn Life	New York				37	127,650 00	3,751 59	135	503,283 00	14,000 00
Connecticut Mutual Life	Hartford	11	36,000 00	834 56	521	2,564,600 00	80,360 79	888	3,312,765 00	104,287 00
Equitable Life	New York	244	1,057,500 00	46,149 72	992	4,861,200 00	198,218 70	1,450	6,385,499 00	215,739 78
Germania Life	New York	32	149,500 00	7,761 31	2,083	2,800,601 00	72,392 14	2,204	3,454,300 22	164,567 44
Hartford Life	Hartford	*11	40,000 00							
Manhattan Life	New York	70	206,620 00	7,656 20	473	1,639,206 00	39,656 17	543	1,845,826 00	88,546 78
Mutual Benefit Life	Newark	104	416,500 00	17,234 46	321	1,329,900 00	53,501 79	456	2,080,790 00	44,166 67
Mutual Life	New York	334	980,530 00	48,372 37	2,435	9,367,835 00	338,455 85	3,729	12,313,426 00	414,938 60
New England Mutual Life	Boston	193	625,000 00	27,478 32	790	2,231,000 00	89,639 67	1,243	3,433,355 00	90,259 47
New York Life	New York	74	312,000 00	16,889 57	695	3,230,000 00	124,311 18	1,265	4,520,000 00	59,278 27
Northwestern Mutual Life	Milwaukee	104	382,250 00	20,338 20	247	745,000 00	31,108 98	518	1,388,471 00	42,140 00
Travelers'	Hartford	59	150,000 00	4,267 12	130	337,994 00	14,237 80	198	504,900 00	
Union Mutual Life	Portland, Me.	14	37,500 00	1,626 69	231	678,500 00	18,638 66	245	716,000 00	18,431 39
United States Life	New York	5	32,500 00	942 74	56	108,515 00	3,051 60	61	141,015 00	
Washington Life	New York	24	85,000 00	2,986 22	100	208,550 00	7,253 74	124	293,550 00	7,208 02
Charter Oak Life	Hartford				84	212,830 00	7,570 98	319	573,373 00	28,606 84
National Life	Chicago				40		4,830 93	40		1,000 00
Phœnix Mutual Life	Hartford				188	380,372 00	10,710 00	188	380,372 00	47,460 00
Totals		1,552	$5,290,660 00	$240,684 62	11,386	$35,989,475 00	$1,307,986 54	16,069	$47,924,702 22	$1,426,340 26

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* Certificates.

TABLE No. 10.

Showing the business of Accident, Fidelity and Casualty, Steam Boiler, and Plate Glass Insurance Companies, for the year ending December 31, 1884—California business.

NAME.	LOCATION.	NEW POLICIES WRITTEN.			POLICIES RENEWED.			POLICIES IN FORCE DECEMBER 31, 1884.		Losses Paid.
		Number.	Amount.	Premium.	Number.	Amount.	Premium.	Number.	Amount.	
Accident Ins. Co. of North America	Montreal	614	$1,520,300 00	$11,571 05	225	$654,500 00	$4,556 30	781	$2,003,800 00	$5,448 12
Fidelity and Casualty	New York	707	2,120,650 00	15,515 60	291	875,700 00	7,162 95	840	2,520,450 00	8,689 70
Travelers'	Hartford	3,029	8,483,750 00	35,037 15	2,514	7,384,500 00	50,616 26	2,837	8,594,250 00	30,457 15
American Steam Boiler	New York		37,000 00	702 50						
Hartford Steam Boiler	Hartford	9	41,000 00	516 25				9	41,000 00	
Metropolitan Plate Glass	New York	53	26,876 00	1,129 34	67	64,464 00	2,800 45	118	90,774 00	997 50
Totals		4,412	$12,229,576 00	$64,471 89	3,097	$8,979,164 00	$65,135 96	4,585	$13,250,274 00	$45,592 47

REPORT.

Office of Insurance Commissioner,
San Francisco, July 23, 1885.

To his Excellency George Stoneman, *Governor of California:*

In accordance with law I submit the seventeenth annual report of this department, showing in detail the condition and business of the several California Insurance Companies; and in tabulated form that of the fire, fire and marine, marine, and life insurance companies of other States and foreign countries doing business in this State during the year ending December 31, 1884.

Receipts.

Received during the year, for taxes and fees		$20,453 51

Expenditures.

Salaries	$4,599 96	
Office rent	900 00	
Janitor and Messenger	710 00	
Blanks, stationery, and postage	237 33	
Fuel	27 00	
Newspapers	31 20	
Incidentals	70 90	
		6,576 39
Balance		$13,877 12

Very respectfully, your obedient servant,

GEO. A. KNIGHT,
Insurance Commissioner.

TABLE No. 11.

Showing the year of organization, location, name of President, Secretary, and Agent or Attorney for California, and date of certificate of authority issued by the Insurance Commissioner, and the date of commencement of business in California of Fire, Marine, and Life Insurance Companies, authorized to transact business on July 15, 1885.

Year of organization.	NAME.	Location.	President.	Secretary.	Agent for California.	Date of Certificate issued by Insurance Commissioner.	Commenced business in California.
1861	California	San Francisco	C. T. Hopkins	L. L. Bromwell		June 24, 1868	February, 1861
1872	Commercial	San Francisco	John H. Wise	Charles A. Laton		March 1, 1872	March 1, 1872
1863	Fireman's Fund	San Francisco	D. J. Staples	Wm. J. Dutton		June 24, 1868	June, 1863
1864	Home Mutual	San Francisco	J. F. Houghton	Charles R. Story		June 24, 1868	Dec. 13, 1864
1880	Oakland Home	Oakland, Cal.	Wm. P Jones	Wm. F. Blood		Feb. 5, 1880	Feb. 5, 1880
1885	Southern California	Los Angeles, Cal.	H. C. Sigler	Matthew Long		Feb. 21, 1885	Feb. 21, 1885
1871	State Investment	San Francisco	A. J. Bryant	Charles H. Cushing		Jan. 13, 1872	Jan. 15, 1872
1882	Sun	San Francisco	C. L. Taylor	E. E. Potter		Feb. 1, 1882	Feb. 1, 1882
1865	Union	San Francisco	Gustave Touchard	James D. Bailey		June 27, 1868	June 20, 1865
1878	Western Fire and Marine	San Francisco	P. J. White	R. G. Brush		Dec. 4, 1878	Dec. 4, 1878
1819	Ætna	Hartford	L. J. Hendee	J. Goodnow	G. C. Boardman	June, 1868	June 20, 1865
1863	Agricultural	Watertown, N. Y.	Isaac Munson	H. M. Stevens	Hutchinson & Mann	August 2, 1876	August 2, 1876
1868	Allemannia	Pittsburgh	R. C. Schmertz	Charles F. Herrosee	Hutchinson & Mann	April 21, 1879	April 21, 1879
1824	Alliance Marine	London	Sir Moses Montefiore	Douglas Owen	Parrott & Co.	May 28, 1881	May 28, 1881
1871	Amazon	Cincinnati	Gazzam Gano	J H. Beattie	Smith, Snow & Moody	October 1, 1872	October 1, 1872
1846	American	Newark	F. H. Harris	J. H. Worden	Balfour, Guthrie & Co.	August 13, 1883	Aug. 13, 1883
1853	American Central	St. Louis	Geo. T. Cram	C. Christensen	Smith, Snow & Moody	April 15, 1874	April 15, 1874
1810	American Fire	Philadelphia	T. H. Montgomery	A C. L. Crawford	Brown, Craig & Co.	October 31, 1872	Oct. 31, 1872
1864	Baloise	Basle, Switzerland	R. P. Vischer	C. Blankarts	H. W. Syz	Nov. 28, 1876	Nov. 28, 1876
1865	Boatman's Fire and Marine	Pittsburgh	O. P. Scaife	H. H. Schenck	Hutchinson & Mann	April 2, 1883	April 2, 1883
1873	Boston Marine	Boston	R. B. Fuller	Thomas H. Lord	J. N. Knowles	August 22, 1882	August 22, 1882
1833	British America	Toronto	John Morison	Silas P. Wood	Butler & Haldan	March 11, 1875	March 11, 1875
1863	British and Foreign Marine	Liverpool	Thomas Chilton	W. D. Pritt	Balfour, Guthrie & Co.	October 10, 1868	August 25, 1864
1881	Canton	Hong Kong	Jardine, Matheson & Co.		Parrott & Co.	June 1, 1882	June 1, 1882
1865	China Traders'	Hong Kong	A. McIver	W. H. Ray	Williams, Dimond & Co.	Sept. 4, 1871	Sept. 4, 1871
1871	Chinese	Hong Kong		S. J. Gower	Wm. T. Coleman & Co.	June 9, 1871	June 9, 1871
1837	Citizens'	St. Louis	J. B. M. Kehlor	J. P. Harrison	Hutchinson & Mann	Sept. 5, 1878	Sept. 5. 1878
1836	Citizens'	New York	James M. McLean	F. M. Parker	Cesar Bertheau	Nov. 27, 1883	Nov. 27, 1883
1881	City of London Fire	London	Sir Henry E. Knight	L. C. Phillips	W. J. Callingham	May 19, 1881	May 19, 1881
1861	Commercial Union	London	A. R. Scoble	G. L. Bennett	C. F. Mullins	June 22, 1870	June 22, 1870
1870	Concordia Fire	Milwaukee	J. H. Buening	G. Wollaeger	Jacobs & Easton	April 22, 1885	April 22, 1885
1850	Connecticut	Hartford	J. D. Browne	C. R Burt	Wm. McDonald	August 20, 1873	August 20, 1873
1852	Continental	New York	Geo. T. Cope	Cyrus Peck	Hutchinson & Mann	Sept. 21, 1872	Sept 21, 1872
1867	Danube Marine	Vienna	L. Lichtenstein	C. Colditz	H. Balzer & Co.	March 31, 1879	March 31, 1879
1872	Eliot	Boston	G. C. George	A. P. Curtis	E. E. Potter	October 23, 1877	Oct 23, 1877
1872	Farragut Fire	New York	J. E. Leffingwell	Samuel Darbee	Hutchinson & Mann	March 25, 1879	March 25, 1879

1820	Fire Association	Philadelphia	Jesse Lightfoot	W. S. Winship	Charles A. Laton	Dec. 9, 1873	Dec. 9, 1873
1880	Fire Insurance Association	London	R. N. F. Kingscote	W. P. Clirehugh	Hutchinson & Mann	Sept. 10, 1880	Sept. 10, 1880
1825	Firemen's	Baltimore	J. M. Anderson	Wm. Armstrong	Hutchinson & Mann	Nov. 24, 1880	Nov. 24, 1880
1855	Firemen's	Newark	S. R. W. Heath	Charles Colyer	Hutchinson & Mann	June 2, 1885	June 2, 1885
1879	Fonciere	Paris	A. Fraissinet	M. Moutier	Hutchinson & Mann	Nov. 20, 1880	Nov. 20, 1880
1829	Franklin	Philadelphia	J. W. McAllister	E. T. Cresson	E. E. Potter	May 15, 1885	May 15, 1885
1865	German	Freeport, Illinois	M. Hettinger	F. Gund	Jacobs & Easton	April 9, 1883	April 9, 1883
1872	German-American	New York	E. Oelberman	J. A. Silvey	Tom C. Grant	October 10, 1873	Oct. 10, 1873
1862	German Fire	Pittsburgh	C. Barchfeld	F. L. Gross	Jacobs & Easton	April 8, 1879	April 8, 1879
1859	Germania	New York	R. Garrigue	H. Schumann	Gutte & Frank	October 25, 1869	Oct. 25, 1869
1866	Germania	New Orleans	H. Zuberbier	E. Weber	Hutchinson & Mann	July 26, 1884	July 26, 1884
1881	Glasgow and London	Glasgow	C. W. Pearce	George King	John Landers	Feb. 24, 1885	Feb. 24, 1885
1849	Glen's Falls	Glen's Falls, N. Y.	R. M. Little	J. L. Cunningham	Jacobs & Easton	April 8, 1876	April 8, 1876
1853	Girard Fire and Marine	Philadelphia	A. S. Gillett	E. F. Merrill	Hutchinson & Mann	Sept. 23, 1872	Sept. 23, 1872
1870	Globe Marine	London	Benj. Whitworth	B. F. Cobb	W. T. Coleman & Co.	Feb. 26, 1877	Feb. 26, 1877
1855	Great Western	New York	F. Motz	W. T. Lockwood	Everard Steele	Nov. 9, 1881	Nov. 9, 1881
1821	Guardian	London	A. G. H. Gibbs	T. G. C. Browne	Wm. J. Landers	October 24, 1876	Oct. 24, 1876
1854	Hamburg-Bremen	Hamburg	L. E. Amsinck	S. Von Dorrien	Speyer & Herold	Sept. 26, 1868	May 4, 1862
1876	Hamburg-Magdeburg	Hamburg	A. Bredikow	T. Hupeden	Gutte & Frank	August 16, 1876	August 16, 1876
1852	Hanover	New York	B. S. Walcott	I. Remsen Lane	Cesar Bertheau	October 25, 1869	Oct. 25, 1869
1810	Hartford	Hartford	Geo. L. Chase	C. B. Whiting	A. P. Flint	Jan. 17, 1870	Jan. 17, 1870
1858	Helvetia Marine	St. Gall, Switzerland	C. B. Jacob	M. T. Grossman	H. W. Syz	Nov. 28, 1876	Nov. 28, 1876
1861	Helvetia Swiss Fire	St. Gall, Switzerland	C. B. Jacob	M. T. Grossman	H. W. Syz	Dec. 6, 1876	Dec. 6, 1876
1853	Home	New York	C. J. Martin	J. H. Washburn	A. E. Magill	Nov. 13, 1868	May, 1862
1825	Howard	New York	H. A. Oakley	C. A. Hull	O. Hawes	July 30, 1883	July 30, 1883
1803	Imperial	London	F. F. Leddernale	E. C. Smith	Robert Dickson	Sept. 26, 1868	May 1, 1862
1794	Insurance Co. of North America	Philadelphia	Charles Platt	G. E. Fryer	J. Hunt, Son & Co.	October 13, 1872	Oct. 13, 1872
1794	Ins. Co. of the State of Pennsylvania	Philadelphia	H. D. Sherrerd	J. H. Hollinshead	Brown, Craig & Co.	Feb. 15, 1878	Feb. 15, 1878
1879	International Marine	Liverpool	T. B. Boyden	W. W. Clay	Donaldson & Co.	August 26, 1880	August 26, 1880
1852	Lancashire	Manchester	N. Shelmerdine	Geo. Stewart	Falkner, Bell & Co.	July 10, 1874	July 10, 1874
1879	Lion Fire	London	J. S. Forbes	Thos. B. Bell	Geo. D. Dornin	April 12, 1880	April 12, 1880
1836	Liverpool and London and Globe	Liverpool	John M. Dove	Alex. Duncan	Charles D. Haven	Sept. 26, 1868	May 1, 1862
1720	London Assurance	London	W. Rennie	J. P. Lawrence	Robert Dickson	August 28, 1872	August 28, 1872
1861	London and Lancashire	Liverpool	C. G. Fothergill	J. B. Moffat	Balfour, Guthrie & Co.	Nov. 6, 1879	Nov. 6, 1879
1881	London and Provincial Fire	London	E. C. Morgan	Henry Williams	H. W. Syz	April 13, 1882	April 13, 1882
1860	London and Provincial Marine	London	J. Borradaile	J. L. Daniell	Hutchinson & Mann	April 3, 1879	April 3, 1879
1872	Magdeburg General	Magdeburg	T. Dammann	A. Kalkow	Gutte & Frank	August 31, 1878	August 31, 1878
1824	Manchester Fire	Manchester	J. B. Northcott	F. Hudson	Balfour, Guthrie & Co.	April 22, 1880	April 22, 1880
1879	Mannheim	Mannheim	F. Engelhorn	C. Girtanner	Geo. Marcus & Co.	Nov. 10, 1884	Nov. 10, 1884
1881	Man On	Hong Kong	Quan Hoi Chune	Woo Lin Yuen	Tuck Chong & Co.	October 31, 1881	Oct. 31, 1881
1864	Maritime	Liverpool	W. H. Haynes	W. Relton	E. L. Woods	July 3, 1874	July 3, 1874
1857	Mechanics' Fire	Brooklyn	J. K. Oakley	W. Nichols	Hutchinson & Mann	April 7, 1882	April 7, 1882
1858	Merchants'	Newark	Henry Powles	J. R. Mulliken	Jacobs & Easton	Jan. 31, 1882	Jan. 31, 1882
1850	Merchants'	New York	John H. Morris	I. S. Mettler	Jacobs & Easton	May 8, 1885	May 8, 1885
1823	National	Dublin	Thomas A. Kelly	H. Engelbach	H. M. Newhall & Co.	October 18, 1884	Oct. 18, 1884
1838	National Fire	New York	H. T. Drowne	F. J. Walton	Wm. J. Dutton	May 13, 1879	May 13, 1879
1871	National Fire	Hartford	Mark Howard	James Nichols	Hagan, Mannheim & Co.	August 5, 1884	August 5, 1884
1873	National Fire and Marine	Dunedin, N. Z.	J. M. Ritchie	A. H. Jack	W. J. Callingham	October 1, 1878	Oct. 1, 1878
1882	National Marine	London	H. W. Petre	Wm. Gray	Gutte & Frank	October 9, 1883	Oct. 9, 1883
1869	New Hampshire Fire	Manchester	J. A. Weston	J. C. French	Jos. C. Jennings & Co.	Nov. 30, 1880	Nov. 30, 1880
1869	New Orleans Insurance Association	New Orleans	G. Lanaux	Leon Sere	Hutchinson & Mann	June 20, 1873	June 20, 1873
1883	New York Bowery Fire	New York	J. A. Delanoy, Jr.	H. Griffen	O. Hawes	July 1, 1884	July 1, 1884

TABLE No. 11—Continued.

Year of organization.	NAME.	Location.	President.	Secretary.	Agent for California.	Date of Certificate issued by Insurance Commissioner.	Commenced business in California.
1859	New Zealand	Auckland	J. Wiliamson	G. P. Pierce	Hugh Craig	March 27, 1875	March 27, 1875
1850	Niagara Fire	New York	P. Notman	W. Pollock	Smith, Snow & Moody	Oct. 18, 1878	Oct. 18, 1878
1872	North American	Boston	A. Bowker	E. E. Patridge	E. E. Potter	March 27, 1884	March 27, 1884
1809	North British and Mercantile	London	G H. Burnett	F. W. Lance	Tom C. Grant	Sept. 26, 1868	Oct. 13, 1862
1863	North China	Shanghai	E. H. Lavers	J. K. Davis	Macondray & Co.	June 13, 1876	June 13, 1876
1836	Northern	London	Sir Wm. Miller	James Valentine	Robert Dickson	Sept. 26, 1868	May 1, 1862
1868	North German Fire	Hamburg	J. Nordheim	C. Perger	Walter Speyer	Sept. 20, 1877	Sept. 20, 1877
1869	Northwestern National	Milwaukee	A. Mitchell	J. P. McGregor	Smith, Snow & Moody	Feb. 19, 1877	Feb. 19, 1877
1797	Norwich Union	Norwich, England	H. S. Patteson	C. E. Bignold	Falkner, Bell & Co.	July 13, 1877	July 13, 1877
1877	On Tai	Shanghai	Lee Sing	Ho Amei	Lai Hing Lung & Co.	Nov. 22, 1877	Nov. 22, 1877
1881	Oregon Fire and Marine	Portland, Oregon	M. W. Fechheimer	Edward Hall	Jacobs & Easton	August 27, 1884	August 27, 1884
1867	Orient	Hartford	John W. Brooks	G. W. Lester	Geo. D. Dornin	March 10, 1881	March 10, 1881
1851	Pacific Fire	New York	T F. Jeremiah	F. T. Stinson	Smith, Snow & Moody	March 23, 1881	March 23, 1881
1854	Pennsylvania	Pittsburgh	C. Yeager	Tho. D. Keller	Hutchinson & Mann	August 29, 1882	Aug. 29, 1882
1825	Pennsylvania Fire	Philadelphia	J. Devereux	J. L. Thomson	J. Hunt, Son & Co.	Dec. 20, 1875	Dec. 20, 1875
1862	People's	Pittsburgh	James Herdman	W. F. Gardner	Hutchinson & Mann	June 2, 1884	June 2, 1884
1853	Phenix	New York	S. Crowell	P. Shaw	Brown, Craig & Co.	Nov. 9, 1868	Aug. 25, 1864
1854	Phœnix	Hartford	H. Kellogg	D. W. C. Skilton	A. E. Magill	July 16, 1868	June 29, 1863
1782	Phœnix	London	O. E. Coope	W. C. Macdonald	Butler & Haldan	Dec. 22, 1879	Dec. 22, 1879
1872	Prescott	Boston	F. Greene	F. H. Stevens	E. E. Potter	April 22, 1881	April 22, 1881
1799	Providence-Washington	Providence, R. I.	J. H. DeWolf	J. B. Branch	William J. Dutton	Dec. 31, 1874	Dec. 31, 1874
1845	Prussian National	Stettin	F. Brumm	O. Noehmer	Franz, Jacoby & Co.	Nov. 15, 1881	Nov. 15, 1881
1858	Queen	Liverpool	J. M. Wilson	T. W. Thomson	Robert Dickson	March 10, 1874	March 10, 1874
1881	Reliance Marine	Liverpool	L. R. Bailey	F. W. Dixon	Henry Lund	Dec. 19, 1881	Dec. 19, 1881
1845	Royal	Liverpool	J. H. McLaren	D. Johnson	Falkner, Bell & Co.	June 23, 1869	June 23, 1869
1824	Scottish Union and National	Edinburgh	J. M. McCandlish	P. Pattison	Hagan, Mannheim & Co.	July 19, 1881	July 19, 1881
1875	Sea	Liverpool	R. P. Wood	W. Bates	Meyer, Wilson & Co.	July 19, 1876	July 19, 1876
1841	Security	New Haven	C. Peterson	H. Mason	William Macdonald	Jan. 12, 1877	Jan. 12, 1877
1865	Saint Paul	St. Paul, Minn.	C. H. Bigelow	C. B. Gilbert	Hutchinson & Mann	Sept. 23, 1872	Sept. 23, 1872
1872	South British Fire and Marine	Auckland	W. C. Daldy	G. Johnston	W. J. Callingham	Aug. 23, 1877	Aug. 23, 1877
1849	Springfield Fire and Marine	Springfield, Mass.	J. N. Dunham	S. J. Hall	Jacobs & Easton	April 6, 1881	April 6, 1881
1871	Standard Marine	Liverpool	N. Duckworth	John Gick	W. J. Callingham	June 25, 1881	June 25, 1881
1883	Straits	Singapore	John Anderson	Tho. Butler	George Marcus & Co.	July 18, 1884	July 18, 1884
1866	Svea Fire and Life	Gothenburg, Sweden	C. O. Kjellberg	E. Boye	J. M. Philip	Sept. 22, 1884	Sept. 22, 1884
1855	Sun Mutual	New Orleans	James I. Day	Horace Carpenter	Joseph C. Jennings & Co.	April 13, 1885	April 13, 1885
1869	Switzerland Marine	Zurich	R. Naef	H. Knorr	H. W. Syz	Oct. 7, 1874	Oct. 7, 1874
1871	Teutonia	New Orleans	W. B. Schmidt	A. P. Noll	Hutchinson & Mann	April 18, 1879	April 18, 1879
1860	Thames and Mersey	Liverpool	James Poole	J. Kidman	W. G. Harrison	Aug. 21, 1876	Aug. 21, 1876
1836	The Marine	London	J. R. Engledue	R. J. Lodge	G. W. McNear	Sept. 14, 1877	Sept 14, 1877
1865	Traders'	Chicago	E. Buckingham	R. J. Smith	William F. Blood	June 6, 1873	June 6, 1873
1872	Transatlantic Fire	Hamburg	W. Jacobsen		George Marcus & Co.	Aug. 2, 1872	Aug. 2, 1872
1872	Transatlantic Marine	Berlin	E. Hergersberg	J. A. Pfaehler	Thannhauser & Co.	June 24, 1873	June 24, 1873
1804	Union	Philadelphia	C. Heiskill	J. B. Craven	Jacobs & Easton	Oct. 11, 1880	Oct. 11, 1880

1835	Union	Hong Kong	P. Ryrie	N. I. Ede	Page Brothers	Dec. 18, 1883	Dec. 18, 1883
1877	Union Fire and Marine	Christchurch, N. Z.	J. T. Peacock	W. D. Meares	C. T. Hopkins, L. L. Bromwell	Feb. 27, 1882	Feb. 27, 1882
1863	Union Marine	Liverpool	T. D. Hornby	W. Gow	E. L. Woods	July 3, 1874	July 3, 1874
1877	United Fire Reinsurance	Manchester	Tho. Brooke	James N. Lane	Hutchinson & Mann	July 28, 1884	July 28, 1884
1824	United States Fire	New York	W. W. Underhill	G. E. Cock	D. L. Beck & Sons	April 7, 1882	April 7, 1882
1860	Universal Marine	London	Sir J. Lubbock	A. Tozer	W. B. Chapan	Oct. 4, 1877	Oct. 4, 1877
1872	Washington Fire and Marine	Boston	I. Sweetser	A. W. Damon	George D. Dornin	Nov. 1, 1877	Nov. 1, 1877
1837	Westchester Fire	New Rochelle, N. Y.	G. R. Crawford	J. Q. Underhill	Joseph C. Jennings & Co.	March 20, 1885	March 20, 1885
1851	Western	Toronto	A. M. Smith	J. Boomer	Butler & Haldan	Jan. 12, 1877	Jan. 12, 1877
1853	Williamsburg City Fire	Brooklyn	E. Driggs	N. W. Meserole	E. E. Potter	Feb. 4, 1881	Feb. 4, 1881
1862	Yangtsze	Shanghai	C. V. Smith	Russell & Co.	Macondray & Co.	Oct 23, 1868	Sept. 14, 1866
1868	Pacific Mutual Life	San Francisco	George A. Moore	J. N. Patton		June 24, 1868	Jan. 2, 1868
1820	Ætna Life	Hartford	M. G. Bulkeley	J. L. English	John H. Stevens	March 27, 1879	March 27, 1879
1864	Brooklyn Life	New York	Wm. M. Cole	William Dutcher	A. J. Bryant	Nov. 11, 1878	Nov. 11, 1878
1846	Connecticut Mutual Life	Hartford	J. L. Greene	W. G. Abbot	John S. Wilkins	June 21, 1880	June 21, 1880
1859	Equitable Life	New York	H. B. Hyde	W. Alexander	W. D. Garland	July 9, 1878	July 9, 1878
1860	Germania Life	New York	H. Wesendonck	C. Doremus	Julius Jacobs	Feb. 11, 1879	Feb. 11, 1879
1866	Hartford Life and Annuity	Hartford	F. R. Foster	Stephen Ball	T. Ellsworth	Nov. 17, 1884	Nov. 17, 1884
1850	Manhattan Life	New York	Henry Stokes	H. Y. Wemple	John Landers	Aug. 2, 1878	Aug. 2, 1878
1845	Mutual Benefit Life	Newark	Amzi Dodd	E. L. Dobbins	J. Munsell, Jr.	Sept. 7, 1880	Sept. 7, 1880
1842	Mutual Life	New York	F. S. Winston	I. F. Lloyd	A. B. Forbes	July 1, 1878	July 1, 1878
1835	New England Mutual Life	Boston	B. F. Stevens	J. M. Gibbens	H. K. Field	Sept. 26, 1868	June 17, 1867
1841	New York Life	New York	Morris Franklin	W. H. Beers	A. G. Hawes	August 20, 1878	August 20, 1878
1857	Northwestern Mutual Life	Milwaukee	H. L. Palmer	J. W. Skinner	R. W. Abbott	May 31, 1882	May 31, 1882
1863	Travelers'	Hartford	J. G. Batterson	R. Dennis	W. W. Haskell	July 19, 1878	July 19, 1878
1867	Union Central Life	Cincinnati	John Davis	E. P. Marshall	Hatch & Macdonald	Feb. 25, 1885	Feb. 25, 1885
1848	Union Mutual Life	Portland, Me.	J. E. De Witt	H. D. Smith	Jabez Howes	Sept. 11, 1868	Sept. 11, 1868
1850	United States Life	New York	T. H. Brosnan	C. P. Fraleigh	J. W. Howell	May 14, 1883	May 14, 1883
1860	Washington Life	New York	W. A. Brewer, Jr.	C. Munn	John H. Gray	Feb. 5, 1881	Feb. 5, 1881
	National Life	Chicago			J. R. Garniss	Feb. 16, 1869	Feb. 16, 1869
	Charter Oak Life	Hartford			Frank Eno	Oct. 30, 1878	Oct. 30, 1878
	Phœnix Mutual Life	Hartford			E. P. Gray	August 26, 1880	August 26, 1880
1872	Accident Ins. Co. of North America	Montreal	Sir A. T. Galt	E. Rawlings	Irwin & Watson	Jan. 3, 1882	Jan. 3, 1882
1883	American Steam Boiler	New York	Wm. K. Lothrop	V. R. Schenck	Brown, Craig & Co.	Oct. 13, 1884	Oct. 13, 1884
1884	American Surety	New York	R. A. Elmer	D. B. Sickles	Brown, Craig & Co.	Dec. 5, 1884	Dec. 5, 1884
1876	Fidelity and Casualty	New York	W. M. Richards	J. M. Crane	J. R. Garniss	March 4, 1881	March 4, 1881
1866	Hartford Steam Boiler	Hartford	J. M. Allen	J. B. Pierce	Hutchinson & Mann	Nov. 6, 1884	Nov. 6, 1884
1882	Lloyd's Plate Glass	New York	J. G. Beemer	W. T. Woods	Brown, Craig & Co.	March 11, 1885	March 11, 1885
1874	Metropolitan Plate Glass	New York	H. Harteau	J. H. Taylor	Hutchinson & Mann	May 8, 1879	May 8, 1879

ANNUAL STATEMENTS.

CALIFORNIA INSURANCE COMPANY.

LOCATED AT SAN FRANCISCO—ORGANIZED FEBRUARY, 1861.

C. T. HOPKINS, President. L. L. BROMWELL, Secretary.

Joint stock capital authorized	$600,000 00
Joint stock capital paid up in cash	600,000 00

YEAR ENDING DECEMBER 31, 1884.

ASSETS.

Value of real estate owned by the company	$136,882 55
Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due	12,000 00
Interest due upon said bonds and mortgages	21 25

Stocks, bonds, and other securities, owned absolutely by the company:

	Par Value.	Market Value.	
160 United States 4 per cent bonds	$160,000 00	$194,800 00	
25 Oakland Gas Company bonds	25,000 00	25,500 00	
15 Los Angeles Gas Company bonds	15,000 00	15,750 00	
33 Spring Valley Water Company bonds	33,000 00	38,032 50	
272 shares Bank of California stock	27,200 00	42,160 00	
300 shares First National Bank stock	30,000 00	35,400 00	
150 shares Safe Deposit and Trust Company stock; $50 paid up	15,000 00	7,050 00	
200 shares Grangers' Bank; $50 paid up	20,000 00	12,000 00	
100 shares California Wire Works Company	10,000 00	7,500 00	
200 shares Pacific Rolling Mills Company	20,000 00	20,000 00	
200 shares Wells, Fargo & Co.	20,000 00	21,200 00	
400 shares Oakland Bank of Savings; $50 paid up	20,000 00	24,000 00	
250 shares Geary Street Park and Ocean Railroad Company; $37 50 paid up	25,000 00	24,500 00	
80 Northern Pacific Railroad bonds	80,000 00	80,800 00	
200 shares London, Paris, and American Bank stock; 80 per cent paid up	20,000 00	16,100 00	
500 shares Oakland Gaslight and Heat Company stock; 20 per cent paid up	50,000 00	14,750 00	
Totals	$580,200 00	$579,542 50	579,542 50

Stocks, bonds, and other securities, hypothecated to the company as collateral security for cash loaned by the company:

	Par Value.	Market Value.	Am't Loaned.	
128 shares Spring Valley Waterworks Company stock	$12,800 00	$11,264 00	$6,000 00	
8 bonds California Dry Dock Company	4,000 00	4,200 00	2.000 00	
Totals	$16,800 00	$15,464 00	$8,000 00	8,000 00

Cash in office and in banks	205,688 65
Interest due and accrued on stocks, not included in "market value"	6,320 00
Interest due and accrued on collateral loans, $4 62; interest due on $36,662 39, deposited with savings banks, $845 13	849 75
Gross premiums in due course of collection	54,154 93
Bills receivable, not matured, taken for marine risks	16,365 78
Due for salvage on losses already paid	350 00
	$1,020,175 41

CALIFORNIA INSURANCE COMPANY—Continued.

LIABILITIES.		
Losses in process of adjustment	$33,018 97	
Losses resisted	5,900 00	
		$38,918 97
Gross premiums on fire risks, running one year or less, $328,870 84; unearned premiums, 50 per cent	$164,435 42	
Gross premiums on fire risks, running more than one year, $118,166 48; unearned premiums, pro rata	69,122 25	
Gross premiums on marine and inland navigation risks, $5,671 56; unearned premiums, 100 per cent	5,671 56	
Gross premiums on marine time risks; unearned premiums, 50 per cent	21,479 32	
		260,708 55
Commissions and brokerage due and to become due		8,123 24
Gross liabilities, except capital stock		$307,750 76
Surplus as regards policy holders		$712,424 65
Capital stock paid up in cash		600,000 00
Surplus over paid up capital, and all other liabilities		$112,424 65

INCOME.	Fire.	Marine.	
Net cash actually received for premiums	$376,447 16	$69,897 10	$446,344 26
Received for interest on bonds and mortgages			17,389 87
Received for interest and dividends on stocks and bonds			19,166 60
Received for rents			7,375 00
Aggregate income received in cash			$490,275 73

EXPENDITURES.	Fire.	Marine.	
Gross amount paid for losses, including $26,155 41, losses in previous years	$211,174 92	$19,780 27	$230,955 19
Cash dividends paid stockholders			54,000 00
Paid for commissions and brokerage			64,821 90
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés			36,486 41
Paid for State, national, and local taxes			10,427 49
All other payments and expenditures			57,598 75
Aggregate amount of expenditures in cash			$454,289 74

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.	Marine and Inland Risks.	Premiums thereon.
In force on December 31 of preceding year	$23,517,576 00	$339,303 78	$802,905 00	$54,469 14
Written during the year	33,111,558 00	464,892 58	3,261,302 00	91,526 31
Totals	$56,629,134 00	$804,196 36	$4,064,207 00	$145,995 45
Deduct those expired, and marked off as terminated	23,952,238 00	331,368 89	3,247,042 00	89,613 33
In force at the end of the year	$32,676,896 00	$472,827 47	$817,165 00	$56,382 12
Deduct amount reinsured	1,722,449 00	25,790 15	113,292 00	7,751 91
Net amount in force	$30,954,447 00	$447,037 32	$703,873 00	$48,630 21

COMMERCIAL INSURANCE COMPANY.

Located at San Francisco—Organized February 26, 1872.

JOHN H. WISE, President. CHARLES A. LATON, Secretary.

Joint stock capital authorized	$200,000 00
Joint stock capital paid up in cash	200,000 00

YEAR ENDING DECEMBER 31, 1884.

ASSETS.

Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due		$210,004 95
Interest due and accrued on said bonds and mortgages		712 67

Stocks, bonds, and other securities owned by the company:

	Par Value.	Market Value.	
U. S. bonds, 4-20's, 50 bonds, $1,000 each	$50,000 00	$61,500 00	
1,900 shares Merchants' Exchange Bank stock, in liquidation	190,000 00	39,900 00	
16 Shasta County bonds, 7 per cent	16,000 00	17,200 00	
185 shares Spring Valley Waterworks stock	18,500 00	16,187 50	
120 shares North Beach and Mission Railroad Company stock	12,000 00	11,340 00	
	$286,500 00	$146,127 50	146,127 50

Stocks, bonds, and other securities hypothecated to the company as collateral security for cash loaned by the company:

	Par Value.	Market Value.	Am't Loaned.	
120 shares California Furniture Manufacturing Company	$12,000 00	$12,000 00	$4,000 00	
Merchandise in warehouse	500 00	500 00	250 00	
100 shares San Francisco Gaslight Co.	10,000 00	5,800 00	3,000 00	
	$22,500 00	$18,300 00	$7,250 00	7,250 00

Indorsed commercial notes	330 00
Cash in office and banks	31,670 93
Interest due and accrued on stocks and bonds	1,105 83
Interest due and accrued on collateral loans	339 85
Gross premiums in due course of collection	36,864 44
Bills receivable, not matured, taken for fire, marine, and inland risks	7,166 75
Total admitted assets	$441,572 92

LIABILITIES.

Losses in process of adjustment	$24,393 52	
Losses resisted	2,100 00	
		$26,493 52
Gross premiums on fire risks, running one year or less, $248,511 70; unearned premiums, 50 per cent	$124,255 85	
Gross premiums on fire risks, running more than one year, $15,206 28; unearned premiums, pro rata	10,363 21	
Gross premiums on marine and inland navigation risks, $2,113 92; unearned premiums, 100 per cent	2,113 92	
Gross premiums on marine time risks, $17,398 45; unearned premiums, 50 per cent	8,699 23	
		145,432 21
All other demands against the company		2,405 42
Total liabilities, except capital stock		$174,331 15
Surplus as regards policy holders		$267,241 77
Capital stock, paid up in cash		200,000 00
Surplus over paid up capital, and all other liabilities		$67,241 77

COMMERCIAL INSURANCE COMPANY—Continued.

INCOME.

	Fire.	Marine.	
Net cash received for premiums	$274,240 99	$29,303 85	$303,544 84
Received for interest on bond and mortgage loans			15,331 91
Received for interest and dividends on stocks and bonds			5,327 93
Total cash income			$324,204 68

EXPENDITURES.

	Fire.	Marine.	
Amount paid during the year for losses	$158,898 72	$20,388 64	$179,287 36
Cash dividends paid stockholders			24,000 00
Paid for commissions and brokerage			65,642 33
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés			26,660 15
Paid for taxes			4,430 83
All other payments and expenditures			22,145 61
Total cash expenditures			$322,166 28

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.	Marine and Inland Risks.	Premiums thereon.
In force on December 31 of the preceding year	$10,933,194 00	$168,831 02	$359,219 00	$34,161 59
Written during the year	21,848,203 00	342,637 99	1,902,070 00	37,287 70
Totals	$32,781,397 00	$511,469 01	$2,261,289 00	$71,449 29
Deduct those expired and marked off as terminated	17,609,445 00	240,696 50	1,951,488 00	51,073 57
In force at the end of the year	$15,171,952 00	$270,772 51	$309,801 00	$20,375 72
Deduct amount reinsured	338,746 00	7,054 66	19,369 00	863 35
Net amount in force	$14,833,206 00	$263,717 85	$290,432 00	$19,512 37

FIREMAN'S FUND INSURANCE COMPANY.

LOCATED AT SAN FRANCISCO—ORGANIZED MAY 3, 1863.

D. J. STAPLES, President. WM. J. DUTTON, Secretary.

Joint stock capital authorized	$750,000 00
Joint stock capital paid up in cash	750,000 00

YEAR ENDING DECEMBER 31, 1884.

ASSETS.

	Par Value.	Market Value.	
Value of real estate owned by the company			$321,598 60
Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due			104,500 00
Interest due and accrued on said bond and mortgage loans			382 72
Stocks and bonds owned by the company:			
United States bonds, registered 4's	$400,000 00	$486,000 00	
Oakland City Gaslight Company's bonds	25,000 00	25,500 00	
California Dry Dock Company's bonds	12,000 00	12,600 00	
Market Street Cable Railroad Company bonds	25,000 00	27,375 00	
99 shares First National Bank, San Francisco, stock	9,900 00	11,880 00	
100 shares North Beach and Mission Railroad Company stock	10,000 00	9,500 00	
150 shares Pacific Rolling Mills stock	15,000 00	15,000 00	
250 shares Judson Manufacturing Company stock	25,000 00	5,000 00	
100 shares California Dry Dock Company stock	10,000 00	4,000 00	
200 shares Presidio and Ferries Railroad Co. stock	20,000 00	10,000 00	
200 shares California Street Railroad Co. stock	20,000 00	16,000 00	
220 shares Sutter Street Railroad Company stock	22,000 00	22,880 00	
15 shares Pioneer Woolen Factory stock	15,000 00	7,500 00	
	$608,900 00	$653,235 00	653,235 00

Stocks, bonds, and other securities hypothecated to the company as collateral security for cash loaned by the company:

	Par Value.	Market Value.	Am't Loaned.	
440 shares Masonic Hall Association	$4,400 00	$4,400 00	$3,000 00	
60 shares Safe Deposit Company	6,000 00	2,880 00	2,950 00	
30 shares California Street R. R. Co.	3,000 00	2,400 00		
1,400 shares Oakland Gaslight and Heat Company	140,000 00	40,600 00	30,000 00	
48 shares California Cracker Co.	48,000 00	57,600 00	27,000 00	
4 bonds Central Park North and East River Railroad Company	4,000 00	4,400 00	11,000 00	
10 bonds Pacific Club, San Francisco	10,000 00	10,500 00		
100 shares California Dry Dock Co.	10,000 00	4,000 00	2,500 00	
330 shares Bank of Sonoma	33,000 00	36,300 00	6,000 00	
250 shares Savings and Loan Society	25,000 00	26,250 00	22,500 00	
130 shares Judson Manufacturing Co.	13,000 00	2,600 00	8,500 00	
200 shares California Iron and Steel Company	20,000 00	1,000 00		
130 shares California Artificial Stone Company	1,300 00	1,040 00		
10 shares Knappton Packing Co.	1,000 00	1,200 00		
Assigned mortgage on real estate in Alameda County—land valued, $2,500; building, $4,000; insured for $3,500	3,350 00	3,350 00		
Second mortgage on property in Berkeley	3,000 00	3,000 00		
	$325,050 00	$201,520 00	$113,450 00	113,450 00

Cash in office and in banks	180,061 05
Interest due and accrued on stocks and bonds not included in "market value"	5,480 56
Interest due and accrued on collateral loans	2,120 56
Gross premiums in due course of collection	90,558 29
Amount carried forward	$1,471,386 78

FIREMAN'S FUND INSURANCE COMPANY—Continued.

Amount brought forward		$1,471,386 78
Bills receivable, not matured, taken for fire, marine, and inland risks		44,824 57
Rents due and accrued		234 85
Due from other companies for reinsurance on losses already paid		4,448 57
Total admitted assets		$1,520,894 77

LIABILITIES.

Losses adjusted and unpaid	$37,723 52	
Losses in process of adjustment	39,491 91	
Losses resisted	15,323 88	
	$92,539 31	
Deduct reinsurance thereon	15,805 58	
		$76,733 73
Gross premiums on fire risks running one year or less, $450,668 89; unearned premiums, 50 per cent	$225,334 45	
Gross premiums on fire risks running more than one year, $215,725 31; unearned premiums, pro rata	117,854 55	
Gross premiums on marine and inland navigation risks, $20,994 91; unearned premiums, 100 per cent	20,994 91	
Gross premiums on marine time risks, $87,629 54; unearned premiums, 50 per cent	43,814 77	
		407,998 68
Commissions and brokerage due and to become due, $9,030 23; marine bills payable, $3,786 95; agents' balances, $5,013 28		17,830 46
Total liabilities, except capital stock		$502,562 87
Surplus, as regards policy holders		$1,018,331 90
Capital stock paid up in cash		750,000 00
Surplus over capital and all other liabilities		$268,331 90

INCOME.

	Fire.	Marine.	
Net cash received for premiums during the year	$564,533 22	$190,970 90	$755,504 12
Received for interest on bond and mortgage loans and collateral loans			6,504 90
Received for interest and dividends on stocks and bonds			34,535 41
Received for rents			15,000 03
Total cash income			$811,544 46

EXPENDITURES.

	Fire.	Marine.	
Net amount paid during the year for losses	$325,698 74	$90,493 15	$416,191 89
Cash dividends paid stockholders			90,000 00
Commissions and brokerage			87,478 99
Salaries, fees, and other charges of officers, clerks, agents, and all other employés			69,034 72
Paid for taxes			13,676 65
All other payments and expenditures			73,211 19
Total cash expenditures			$749,593 44

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.	Marine and Inland Risks.	Premiums thereon.
In force December 31, 1883	$56,958,125 82	$755,155 28	$2,374,650 00	$140,674 59
Written during the year	56,025,170 98	785,999 57	15,259,113 00	305,600 60
Totals	$112,983,296 80	$1,541,154 85	$17,633,763 00	$446,275 19
Deduct expirations and cancellations	57,422,557 93	779,585 48	14,822,987 00	302,938 28
In force at the end of the year	$55,560,738 87	$761,569 37	$2,810,776 00	$143,336 91
Deduct amount reinsured	5,124,600 25	95,175 17	760,309 00	34,712 46
Net amount in force Dec. 31, 1884	$50,436,138 62	$666,394 20	$2,050,467 00	$108,624 45

HOME MUTUAL INSURANCE COMPANY.

LOCATED AT SAN FRANCISCO—ORGANIZED SEPTEMBER, 1864.

J. F. HOUGHTON, President. CHARLES R. STORY, Secretary.

Joint stock capital authorized	$300,000 00
Joint stock capital paid up in cash	300,000 00

YEAR ENDING DECEMBER 31, 1884.

ASSETS.

Value of real estate owned by the company	$69,525 00
Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due	279,387 15
Interest due and accrued on said mortgage loans	3,761 66

Stocks, bonds, and other securities owned by the company:

	Par Value.	Market Value.	
United States bonds, registered 4's	$50,000 00	$61,000 00	
Bonds of Stanislaus County, California	33,000 00	34,914 00	
Warrants of Jefferson County, Colorado	16,831 40	19,273 57	
Bonds of Alameda County, California	8,000 00	8,240 00	
	$107,831 40	$123,427 57	123,427 57

Stocks, bonds, and other securities hypothecated to the company as collateral security for cash loaned by the company:

	Par Value.	Market Value.	Am't Loaned	
100 shares Central Land Co.'s stock	$10,000 00	$8,000 00	$4,000 00	
125 shares Merced Security Savings Bank stock	12,500 00	1,875 00		
300 shares Oakland R. R. Co. stock	30,000 00	24,000 00	15,000 00	
200 shares Central Land Co. stock	20,000 00	16,000 00	10,000 00	
50 shares Central Land Co. stock	5,000 00	4,000 00	1,250 00	
99 shares San José Woolen Mill stock	9,900 00	8,415 00	5,000 00	
400 shares Commercial Bank of San José stock	40,000 00	20,000 00	11,000 00	
266 shares San José and Santa Clara Horse R. R. Co. stock	26,600 00	22,610 00	7,500 00	
282 shares Coos Bay Lumber and Stave Company stock	28,200 00	16,920 00	50,000 00	
375 shares Pacific Vinegar and Pickle Works stock	37,500 00	18,750 00		
700 shares King-Morse Canning Co. stock	70,000 00	31,500 00		
125 shares Oakland R. R. Co. stock	12,500 00	10,000 00	5,000 00	
	$302,200 00	$182,070 00	$108,750 00	108,750 00

Cash in company's office	1,043 32
Cash in banks	178,851 53
Interest due and accrued on stocks and bonds not included in "market value"	500 00
Interest due and accrued on collateral loans	605 65
Net premiums in due course of collection	60,651 24
Cash in hands of agents reporting to the Western Department, Chicago, Ill.	30,155 10
Total admitted assets	$856,658 22

LIABILITIES.

Losses adjusted and unpaid	$14,830 45	
Losses in process of adjustment	7,500 00	
Losses resisted	5,565 82	
		$27,896 27
Gross premiums on fire risks running one year or less, $350,330 05; unearned premiums, 50 per cent	$175,165 02	
Gross premiums on fire risks running more than one year, $177,004 22; unearned premiums, pro rata	99,992 05	
		275,157 07
Cash dividends remaining unpaid		1,679 00
Due and accrued for salaries, rents, etc.		1,119 27
Gross liabilities, except capital stock		$305,851 61

HOME MUTUAL INSURANCE COMPANY—Continued.

Surplus, as regards policy holders	$550,806 61
Capital stock paid up in cash	300,000 00
Surplus over paid up capital and all other liabilities	$250,806 61
INCOME.	
Net cash received during the year for premiums	$445,649 16
Received for interest on bonds and mortgages, bonds, collateral loans, and from all other sources	35,421 57
Received for rents	3,546 00
Total cash income	$484,616 73
EXPENDITURES.	
Amount paid for losses (including $4,707 07 losses in previous years)	$140,242 46
Cash dividends paid stockholders	36,000 00
Commissions and brokerage	115,844 69
Salaries, fees, and other charges of officers, clerks, agents, and all other employés	37,698 21
Paid for taxes	6,880 68
All other payments and expenditures	50,767 60
Total cash expenditures	$387,433 64

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.
In force on December 31 of the preceding year	$24,805,213 00	$384,520 31
Written during the year	33,362,712 00	509,933 02
Totals	$58,167,925 00	$894,453 33
Deduct expirations and cancellations	24,060,495 00	357,998 23
In force at the end of the year	$34,107,430 00	$536,455 10
Deduct amount reinsured	511,911 00	9,120 83
Net amount in force December 31, 1884	$33,595,519 00	$527,334 27

OAKLAND HOME INSURANCE COMPANY.

LOCATED AT OAKLAND, CALIFORNIA—ORGANIZED JANUARY 16, 1880.

WM. P. JONES, President. WM. F. BLOOD, Secretary.

Joint stock capital authorized	$200,000 00
Joint stock capital paid up in cash	200,000 00

YEAR ENDING DECEMBER 31, 1884.

ASSETS.	
Value of real estate owned by the company	$90,205 15
Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due	89,750 00
Loans on bonds and mortgages (first liens) upon which more than one year's interest is due	1,500 00
Amount carried forward	$181,455 15

OAKLAND HOME INSURANCE COMPANY—Continued.

	Par Value.	Market Value.	
Amount brought forward			$181,455 15
Interest due and accrued upon said bond and mortgage loans			1,514 70
Bonds owned by the company:			
United States bonds, 4½ per cent	$50,000 00	$56,625 00	56,625 00
Cash in office and banks			28,272 84
Interest due and accrued on bonds, not included in "market value"			187 50
Interest due and accrued on bank deposits			764 82
Gross premiums in course of collection			50,662 66
Due from other solvent insurance companies			9,342 81
Total admitted assets			$328,825 48

LIABILITIES.

Losses adjusted and unpaid		$7,233 70
Gross premiums on fire risks running one year or less, $113,005 81; unearned premiums, 50 per cent	$56,502 90	
Gross premiums on fire risks running more than one year, $50,313 21; unearned premiums, pro rata	30,436 55	
		86,939 45
Cash dividends remaining unpaid		849 50
Commissions and brokerage due and to become due		1,145 23
Total liabilities, except capital stock		$96,167 88
Surplus as regards policy holders		$232,657 60
Capital stock paid up in cash		200,000 00
Surplus over capital and all other liabilities		$32,657 60

INCOME.

Net cash received for premiums during the year	$174,788 73
Received for interest on bond and mortgage loans	9,798 28
Received for interest on stocks and bonds	2,296 80
Received for rents	5,554 86
Total cash income	$192,438 67

EXPENDITURES.

Net amount paid for losses (including $11,092 06, losses in previous years)	$91,351 64
Cash dividends paid stockholders	12,147 00
Commissions and brokerage	30,491 84
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés	23,402 55
Paid for taxes	4,253 50
All other payments and expenditures	18,599 14
Total cash expenditures	$180,245 67

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.
In force on December 31 of the preceding year	$9,248,082 63	$143,351 60
Written during the year	17,475,000 00	262,120 71
Totals	$26,723,082 63	$405,472 31
Deduct expirations and cancellations	12,805,104 59	204,156 88
In force at the end of the year	$13,917,978 04	$201,315 43
Deduct amount reinsured	3,091,949 04	37,996 41
Net amount in force on December 31, 1884	$10,826,029 00	$163,319 02

STATE INVESTMENT AND INSURANCE COMPANY.

Located at San Francisco—Organized December 31, 1871.

A. J. BRYANT, President. CHARLES H. CUSHING, Secretary.

Joint stock capital authorized	$200,000 00
Joint stock capital paid up in cash	200,000 00

YEAR ENDING DECEMBER 31, 1884.

ASSETS.

	Par Value.	Market Value.	Am't Loaned.	
Value of real estate owned by the company				$150,859 13
Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due				78,550 00
Interest due on all said bond and mortgage loans				218 10
Bonds owned by the company:				
United States bonds, 4 per cent	$50,000 00	$61,000 00		
Sonoma County bonds, 6 per cent	10,000 00	10,800 00		
Montgomery Avenue bonds, 6 per cent	10,000 00	4,000 00		
	$70,000 00	$75,800 00		75,800 00
Stocks hypothecated to the company as collateral security for cash loaned by the company:				
333 shares First National Gold Bank, San Francisco	$33,300 00	$38,628 00	$20,000 00	20,000 00
Cash in office and banks				10,006 67
Interest due and accrued on bonds, not included in "market value"				1,160 00
Interest due and accrued on collateral loans				69 40
Gross premiums in course of collection				46,446 07
Rents due and accrued				452 00
Total admitted assets				$383,561 37

LIABILITIES.

Losses in process of adjustment	$13,522 23	
Losses resisted	2,500 00	
		$16,022 23
Gross premiums on fire risks running one year or less, $200,418 08; unearned premiums, 50 per cent	$100,209 04	
Gross premiums on fire risks running more than one year, $34,443 74; unearned premiums, pro rata	18,624 02	
		118,833 06
Cash dividends remaining unpaid		430 00
Commissions and brokerage due and to become due		2,637 40
Total liabilities, except capital stock		$137,922 69
Surplus as regards policy holders		$245,638 68
Capital stock paid up in cash		200,000 00
Surplus over capital stock, and all other liabilities		$45,638 68

INCOME.

Net cash received for premiums	$212,162 15
Received for interest on bond and mortgage loans	4,840 58
Received for interest and dividends on stocks and bonds	4,284 32
Received for rents	10,702 00
Total cash income	$231,989 05

State Investment and Insurance Company—Continued.

EXPENDITURES.	Fire.	Marine.	
Amount paid for losses	$140,957 88	$1,007 72	$141,965 60
Cash dividends paid stockholders			23,745 00
Commissions and brokerage			47,370 83
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés			18,054 20
Paid for taxes			2,484 02
All other payments and expenditures			17,451 15
Total cash expenditures			$251,070 80

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.
In force on December 31 of the preceding year	$15,024,496 00	$240,044 66
Written during the year	16,478,281 00	249,170 49
Totals	$31,502,777 00	$489,215 15
Deduct expirations and cancellations	16,354,439 00	250,353 43
In force at the end of the year	$15,148,338 00	$238,861 72
Deduct amount reinsured	241,650 00	3,999 90
Net amount in force on December 31, 1884	$14,906,688 00	$234,861 82

SUN INSURANCE COMPANY.

Located at San Francisco—Organized February 1, 1882.

C. L. TAYLOR, President.

E. E. POTTER, Secretary.

Joint stock capital authorized	$300,000 00
Joint stock capital paid up in cash	$300,000 00

YEAR ENDING DECEMBER 31, 1884.

ASSETS.	Par Value.	Market Value.	
Value of real estate owned by the company			$90,000 00
Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due			215,000 00
Interest due and accrued on said bond and mortgage loans			2,646 73
Bonds owned by the company:			
United States bonds, three per cent	$50,000 00	$50,500 00	
Merced County bonds, five per cent	34,500 00	35,398 50	
			85,898 50
Cash in office and in banks			20,092 16
Interest due and accrued on bonds, not included in "market value"			1,112 50
Gross premiums in course of collection			37,038 56
Bills receivable, not matured, taken for fire, marine, and inland risks			10,680 01
Due from other companies for reinsurance on losses already paid			169 97
Due from other solvent insurance companies			2,817 55
Total admitted assets			$465,789 31

SUN INSURANCE COMPANY—Continued.

LIABILITIES.

Losses adjusted and unpaid	$1,581 00	
Losses unadjusted	10,165 00	
Losses resisted	1,485 00	
		$13,231 00
Gross premiums on fire risks running one year or less, $130,159 62; unearned premiums, 50 per cent	$65,079 81	
Gross premiums on fire risks running more than one year, $27,834 70; unearned premiums, pro rata	15,117 54	
Gross premiums on marine and inland navigation risks; unearned premiums, 100 per cent	5,445 58	
Gross premiums on marine time risks, unearned premiums	18,908 40	
		104,551 33
Commissions and brokerage, due and to become due		2,355 42
Total liabilities, except capital stock		$120,137 75
Surplus as regards policy holders		$345,678 56
Capital stock paid up in cash		300,000 00
Surplus over capital stock, and all other liabilities		$45,678 56

INCOME.

	Fire.	Marine.	
Net cash received for premiums	$155,647 69	$63,786 04	$219,433 73
Received for interest on mortgage loans, and upon bonds			14,676 90
Received for rents			6,112 50
Received for profit on exchange			157 88
Total cash income			$240,381 01

EXPENDITURES.

	Fire.	Marine.	
Paid for losses, including $4,736 44, losses in previous years	$78,840 61	$29,839 15	$108,679 76
Cash dividends paid stockholders			30,000 00
Commissions and brokerage			31,837 87
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés			25,709 37
Paid for taxes			1,659 62
All other payments and expenditures			17,882 80
Total cash expenditures			$215,769 42

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.	Marine and Inland Risks.	Premiums thereon.
In force on December 31 of the preceding year	$6,831,800 00	$107,272 89	$703,182 00	$37,986 00
Written during the year	14,735,526 00	213,743 68	3,081,536 00	75,767 45
Totals	$21,567,326 00	$321,016 57	$3,784,718 00	$113,753 45
Deduct expirations and cancellations	9,622,010 00	136,964 05	2,235,017 00	64,439 67
In force at the end of the year	$11,945,316 00	184,052 52	$1,549,701 00	$49,313 78
Deduct amount reinsured	367,430 00	26,058 20	387,399 00	7,051 39
Net amount in force on Dec. 31, 1884	$11,577,886 00	$157,994 32	$1,162,302 00	$42,262 39

UNION INSURANCE COMPANY.

Located at San Francisco—Organized April 28, 1865.

GUSTAVE TOUCHARD, President. JAMES D. BAILEY, Secretary.

Joint stock capital authorized	$750,000 00
Joint stock capital paid up in cash	750,000 00

YEAR ENDING DECEMBER 31, 1884.

ASSETS.

Value of real estate owned by the company	$110,000 00
Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due	223,106 89
Interest due on said bond and mortgage loans	811 00

Bonds owned by the company:

	Par Value.	Market Value.	
United States bonds, four per cent consols of 1907	$500,000 00	$607,500 00	
Montgomery Avenue bonds, San Francisco	120,000 00	48,000 00	
Oakland City bonds, California	8,000 00	10,000 00	
Alameda Town bonds, California	10,000 00	11,000 00	
	$638,000 00	$676,500 00	676,500 00

Stocks hypothecated to the company as collateral security for cash loaned by the company:

	Par Value.	Market Value.	Am't Loaned.	
500 shares San Francisco Gaslight Company stock	$50,000 00	$29,000 00	$25,000 00	
100 shares Spring Waterworks stock	10,000 00	8,700 00	5,000 00	
	$60,000 00	$37,700 00	$30,000 000	30,000 00

Cash in office and banks	32,983 76
Interest due and accrued on bonds, not included in "market value"	4,740 00
Gross premiums in course of collection	23,486 83
Bills receivable, not matured, taken for fire, marine, and inland risks	10,630 40
Total admitted assets	$1,112,258 88

LIABILITIES.

Losses adjusted and unpaid	$22,936 96	
Losses unadjusted	22,647 95	
Losses resisted	4,249 07	
		$49,833 98
Gross premiums on fire risks running one year or less, $237,131 25; unearned premiums, 50 per cent	$118,565 60	
Gross premiums on fire risks running more than one year, $104,307 31; unearned premiums, pro rata	56,588 35	
Gross premiums on marine and inland navigation risks, $10,409 65; unearned premiums, 100 per cent	10,409 65	
Gross premiums on marine time risks, unearned premiums	12,512 35	
		198,075 95
Unused balances of bills and notes taken in advance for premiums on open marine policies		1,000 00
Cash dividends remaining unpaid		210 00
Commissions and brokerage due and to become due		1,230 00
Total liabilities, except capital stock		$249,119 93
Surplus as regards policy holders		$861,908 95
Capital stock paid up in cash		750,000 00
Surplus over capital and all other liabilities		$111,908 95

Union Insurance Company—Continued.

INCOME.	Fire.	Marine.	
Net cash received for premiums	$288,085 71	$98,604 54	$386,690 25
Received for interest on bond and mortgage loans			18,640 49
Received for interest and dividends on stocks and bonds and collateral loans			23,602 02
Received for rents			8,940 00
Total cash income			$437,872 76

EXPENDITURES.	Fire.	Marine.	
Amount paid for losses, including $21,925 13, losses in previous years	$182,746 67	$39,469 38	$222,216 05
Cash dividends paid stockholders			90,030 00
Commissions and brokerage			55,568 87
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés			55,530 31
Paid for taxes			11,545 88
All other payments and expenditures			35,207 32
Total cash expenditures			$470,098 43

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.	Marine and Inland Risks.	Premiums thereon.
In force on Dec. 31 of the preceding year	$27,409,686 00	$357,552 41	$1,032,236 00	$37,362 15
Written during the year	27,266,090 00	347,570 00	11,905,650 00	115,116 95
Totals	$54,675,779 00	$705,123 16	$12,937,886 00	$152,479 10
Deduct expirations and cancellations	28,092,850 00	345,464 60	11,981,394 00	114,965 80
In force at the end of the year	$26,582,929 00	$359,658 56	$956,492 00	$37,513 30
Deduct amount reinsured	1,355,674 00	18,220 00	54,250 00	2,078 90
Net amount in force on Dec. 31, 1884	$25,227,255 00	$341,438 56	$902,242 00	$35,434 40

WESTERN FIRE AND MARINE INSURANCE COMPANY.

Located at San Francisco—Organized December 4, 1878.

P. J. WHITE, President. R. G. BRUSH, Secretary.

Joint stock capital authorized	$200,000 00
Joint stock capital paid up in cash	200,000 00

YEAR ENDING DECEMBER 31, 1884.

ASSETS.	Par Value.	Market Value.	
Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due			$137,500 00
Interest due and accrued on said bond and mortgage loans			1,420 85
Bonds owned by the company:			
United States bonds, 4 per cent	$50,000 00	$61,000 00	61,000 00
Commercial notes			10,453 87
Amount carried forward			$210,374 72

Western Fire and Marine Insurance Company—Continued.

Amount brought forward		$210,374 72
Cash in office and in banks		19,883 23
Interest due and accrued on bonds, not included in "market value"		500 00
Net premiums in course of collection		64,347 21
Bills receivable, not matured, taken for fire risks		3,005 43
Total admitted assets		$298,110 59

LIABILITIES.

Losses adjusted and unpaid	$1,812 50	
Losses in process of adjustment	1,500 00	
		$3,312 50
Gross premiums on fire risks running one year or less, $161,342 73; unearned premiums, 50 per cent	$80,671 36	
Gross premiums on fire risks running more than one year, $23,449 43; unearned premiums, pro rata	11,632 40	
		92,303 76
Total liabilities, except capital stock		$95,616 26
Surplus as regards policy holders		$202,494 33
Capital stock paid up in cash		200,000 00
Surplus over capital and all other liabilities		$2,494 33

INCOME.

Net cash received for premiums	$209,353 66
Received for interest on bond and mortgage loans, and upon bonds	10,235 90
Total cash income	$219,589 56

EXPENDITURES.

Amount paid for losses, including $2,500 losses in previous years	$154,523 23
Commissions and brokerage	47,387 85
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés	16,605 00
Paid for taxes	2,192 14
All other payments and expenditures	20,418 31
Total cash expenditures	$241,126 53

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.
In force on December 31 of the preceding year	$13,206,379 00	$217,811 18
Written during the year	14,740,433 00	256,943 97
Totals	$27,946,812 00	$474,755 15
Deduct expirations and cancellations	15,723,201 00	276,658 13
In force at the end of the year	$12,223,611 00	$198,097 02
Deduct amount reinsured	634,022 00	13,304 86
Net amount in force on December 31, 1884	$11,589,589 00	$184,792 16

PACIFIC MUTUAL LIFE INSURANCE COMPANY.

LOCATED AT SAN FRANCISCO—ORGANIZED DECEMBER 28, 1867.

GEORGE A. MOORE, President.	J. N. PATTON, Secretary.
Joint stock capital paid up in cash	$100,000 00

YEAR ENDING DECEMBER 31, 1884.

INCOME.

Cash received for premiums for first year's insurance	$41,517 89	
Cash received for premiums for subsequent years' insurance	285,520 38	
Total	$327,038 27	
Deduct amount paid for reinsurance	842 40	
Total premium income	$326,195 87	$326,195 87
Received for interest on mortgage loans		58,356 27
Received for interest on bonds owned		420 00
Received for interest on premium notes		3,684 57
Received for interest on other debts due the company		2,189 13
Received for rents		1,294 35
Received for fees		45 00
Total income		$392,185 19

DISBURSEMENTS.

Paid for losses and additions	$102,468 66
Paid for matured endowments and additions	51,532 68
Paid to annuitants	600 00
Paid for surrendered policies	59,682 00
Paid for dividends to policy holders	29,153 21
Paid stockholders for interest or dividends	9,055 00
Paid for commissions to agents	25,068 87
Paid for salaries and traveling expenses of managers of agencies and agents	8,859 89
Paid for medical examiners' fees	1,601 25
Paid for salaries and other compensations of officers and other office employés	19,889 84
Paid for taxes	550 99
Paid for rent	2,927 00
Paid for commuting commissions	3,000 00
Paid for advertising	2,748 01
Paid for printing, postage, legal fees, stationery, and sundry expense	6,580 65
Charged to loss and gain	6,890 46
Total disbursements	$330,608 51

ASSETS.

Cost value of real estate, exclusive of all incumbrances		$105,879 92
Loans on bonds and mortgages (first liens) on real estate		849,480 78
Loans secured by pledge of bonds, stocks, or other marketable collaterals		5,544 24
Premium notes on policies in force		58,548 40
Loans made in cash to policy holders on this company's policies assigned as collateral		18,614 97
Cash value of bonds and stocks owned by the company		6,958 39
Cash in office and in banks		90,212 84
Merchandise and personal property		9,119 06
Interest due and accrued on bond and mortgage loans		38,173 73
Interest accrued on bonds and stocks		150 85
Interest accrued on collateral loans		830 00
Interest accrued on premium notes		5,972 00
Gross premiums due and unreported on policies in force December 31, 1884	$49,720 15	
Gross deferred premiums on policies in force December 31, 1884	14,969 27	
Total	$64,689 42	
Deduct loading on above gross amount	12,937 88	
		51,751 54
Total admitted assets		$1,241,236 72

PACIFIC MUTUAL LIFE INSURANCE COMPANY—Continued.

LIABILITIES.

Claims for death losses due and uncalled for	$600 00	
Claims for matured endowments due and uncalled for	1,400 00	
Claims for death losses and matured endowments in process of adjustment	24,600 00	
		$26,600 00
Net present value of all the outstanding policies in force on December 31, 1884, computed according to the American experience table of mortality, with 4½ per cent interest		1,074,174 00
Cash dividends to stockholders remaining unpaid		945 00
Total liabilities		$1,101,719 00
Surplus as regards policy holders		139,517 72

PREMIUM NOTE ACCOUNT.

Premium notes on hand December 31 of preceding year	$57,225 12	
Premium notes received during the year	34,489 96	
		$91,715 08
Deductions during the year as follows:		
Premium notes used in payment of losses and claims	$4,742 46	
Premium notes used in purchase of surrendered policies	5,829 71	
Premium notes used in payment of dividends to policy holders	1,597 05	
Premium notes redeemed by maker in cash	20,997 46	
		33,166 68
Balance of premium notes at the end of the year		$58,548 40

EXHIBIT OF POLICIES.

	WHOLE LIFE POLICIES.		ENDOWMENT POLICIES.		ALL OTHER POLICIES.		TOTAL NUMBERS AND AMOUNTS.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
Policies and additions in force at the end of the previous year	2,375	$6,517,738	286	$620,295	293	$654,900	2,954	$7,792,933
New policies issued	259	730,080	82	211,400	7	20,000	348	961,480
Old policies revived	1	1,000			1	4,000	2	5,000
Old policies increased						300		300
Additions by dividends during the year		4,200		400				4,600
Totals	2,635	$7,253,018	368	$832,095	301	$679,200	3,304	$8,764,313
Deduct policies ceased to be in force:								
By death	38	$89,940	1	$134	4	$9,500	43	$99,574
By maturity (end)			35	50,939			35	50,939
By expiry (term)					2	11,000	2	11,000
By surrender	36	132,500			5	19,000	41	151,500
By lapse	116	391,945	22	59,000	19	47,200	157	498,145
By change and decrease						7,000		7,000
Not taken	19	59,000	4	4,000			23	63,000
Total terminated	209	$673,385	62	$114,073	30	$93,700	301	$881,158
Net numbers and am'ts in force at the end of the year	2,426	$6,579,633	306	$718,022	271	$585,500	3,003	$7,883,155
Policies reinsured							2	$28,471

TABLE NO. 12.

Summary of Assets, Liabilities, Income, Expenditures, etc., and Amount of Surplus over Capital Stock, of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—California Companies.

NAME.	Location.	Cash Capital paid up.	Gross Assets.	Liabilities, Capital not included.	Gross Income.	Gross Expenditures.	Losses Incurred during the Year.	Net Surplus.
California	San Francisco	$600,000 00	$1,020,175 41	$307,750 76	$490,275 73	$454,289 74	$243,718 75	$112,424 65
Commercial	San Francisco	200,000 00	441,572 92	174,331 15	324,204 68	322,166 28	191,680 88	67,241 77
Fireman's Fund	San Francisco	750,000 00	1,520,894 77	502,562 87	811,544 46	749,593 44	416,915 87	268,331 90
Home Mutual	San Francisco	300,000 00	856,658 22	305,851 61	484,616 73	387,433 64	163,431 66	250,806 61
Oakland Home	Oakland	200,000 00	328,825 48	96,167 88	192,438 67	180,245 67	83,498 95	32,657 60
State Investment	San Francisco	200,000 00	383,561 37	137,922 69	231,989 05	251,070 80	146,087 83	45,638 68
Sun	San Francisco	300,000 00	465,789 31	120,137 75	240,381 01	215,769 42	104,163 87	45,678 56
Union	San Francisco	750,000 00	1,112,258 88	250,349 93	437,872 76	470,098 43	250,124 88	111,908 95
Western Fire and Marine	San Francisco	200,000 00	298,110 59	95,616 26	219,589 56	241,126 53	155,335 73	2,494 33
Totals		$3,500,000 00	$6,427,846 95	$1,990,690 90	$3,432,912 65	$3,271,793 95	$1,754,958 42	$937,183 05

TABLE No. 13.

Showing the various items composing the Assets of the Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—California Companies.

NAME.	Location.	Real Estate.	Loans on Bonds and Mortgages.	Stocks and Bonds Owned by the Company.	Loans on Stocks and other Securities as Collateral.	Cash in Office and Banks.
California	San Francisco	$136,882 55	$12,000 00	$579,542 50	$8,000 00	$205,688 65
Commercial	San Francisco		210,004 95	146,127 50	7,250 00	31,670 93
Fireman's Fund	San Francisco	321,598 60	104,500 00	653,235 00	113,450 00	180,061 05
Home Mutual	San Francisco	69,525 00	279,387 15	123,427 57	108,750 00	179,894 85
Oakland Home	Oakland	90,205 15	91,250 00	56,625 00		28,272 84
State Investment	San Francisco	150,859 13	78,550 00	75,800 00	20,000 00	10,006 67
Sun	San Francisco	90,000 00	215,000 00	85,898 50		20,092 16
Union	San Francisco	110,000 00	223,106 89	676,500 00	30,000 00	32,983 76
Western Fire and Marine	San Francisco		137,500 00	61,000 00		19,883 23
Totals		$969,070 43	$1,351,298 99	$2,458,156 07	$287,450 00	$708,554 14

NAME.	Location.	Interest Due and Accrued.	Premiums in course of Collection.	Bills Receivable, not matured, taken for Marine and Inland Risks.	All other Assets.	Total Assets.
California	San Francisco	$7,191 00	$54,154 93	$16,365 78	$350 00	$1,020,175 41
Commercial	San Francisco	2,158 35	36,864 44	7,166 75	330 00	441,572 92
Fireman's Fund	San Francisco	7,983 84	90,558 29	44,824 57	4,683 42	1,520,894 77
Home Mutual	San Francisco	4,867 31	60,651 24		30,155 10	856,658 22
Oakland Home	Oakland	2,467 02	50,662 66		9,342 81	328,825 48
State Investment	San Francisco	1,447 50	46,446 07		452 00	383,561 37
Sun	San Francisco	3,759 23	37,038 56	10,680 01	3,320 85	465,789 31
Union	San Francisco	5,551 00	23,486 83	10,630 40		1,112,258 88
Western Fire and Marine	San Francisco	1,920 85	64,347 21	3,005 43	10,453 87	298,110 59
Totals		$37,346 10	$464,210 23	$92,672 94	$59,088 05	$6,427,846 95

TABLE No. 14.

Showing the various items composing the Liabilities, except Capital Stock, of the Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—*California Companies.*

NAME.	Location.	Losses Adjusted.	Losses Unadjusted.	Losses Resisted.	Cash Dividends Remaining Unpaid.	Fire Reinsurance.
California	San Francisco		$33,018 97	$5,900 00		$233,557 67
Commercial	San Francisco		24,393 52	2,100 00		134,619 06
Fireman's Fund	San Francisco	$21,917 94	39,491 91	15,323 88		343,189 00
Home Mutual	San Francisco	14,830 45	7,500 00	5,565 82	$1,679 00	275,157 07
Oakland Home	Oakland	7,233 70			849 50	86,939 45
State Investment	San Francisco		13,522 23	2,500 00	430 00	118,833 06
Sun	San Francisco	1,581 00	10,165 00	1,485 00		80,197 35
Union	San Francisco	22,936 96	22,647 95	4,249 07	210 00	175,153 95
Western Fire and Marine	San Francisco	1,812 50	1,500 00			92,303 76
Totals		$70,312 55	$152,239 58	$37,123 77	$3,168 50	$1,539,950 37

NAME.	Location.	Marine and Inland Reinsurance.	Marine Time Reinsurance.	All other Claims.	Total Liabilities, Capital Stock not included.	Net Surplus.
California	San Francisco	$5,671 56	$21,479 32	$8,123 24	$307,750 76	$112,424 65
Commercial	San Francisco	2,113 92	8,699 23	2,405 42	174,331 15	67,241 77
Fireman's Fund	San Francisco	43,814 77	20,994 91	17,830 46	502,562 87	268,331 90
Home Mutual	San Francisco			1,119 27	305,851 61	250,806 61
Oakland Home	Oakland			1,145 23	96,167 88	32,657 60
State Investment	San Francisco			2,637 40	137,922 69	45,638 68
Sun	San Francisco	5,445 58	18,908 40	2,355 42	120,137 75	45,678 56
Union	San Francisco	10,409 65	12,512 35	2,230 00	250,349 93	111,908 95
Western Fire and Marine	San Francisco				95,616 26	2,494 33
Totals		$67,455 48	$82,594 21	$37,846 44	$1,990,690 90	$937,183 05

TABLE No. 15.

Showing the various items composing the Incomes of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—California Companies.

NAME.	Location.	Fire Premium.	Marine and Inland Premiums.	Interest on Bonds and Mortgages.	Interest and Dividends from other sources.	Rents.	From all other sources.	Total Income.
California	San Francisco	$376,447 16	$69,897 10	$17,389 87	$19,166 60	$7,375 00		$490,275 73
Commercial	San Francisco	274,240 99	29,303 85	15,331 91	5,327 93			324,204 68
Fireman's Fund	San Francisco	564,533 22	190,970 90	6,504 90	34,535 41	15,000 03		811,544 46
Home Mutual	San Francisco	445,649 16			35,421 57	3,546 00		484,616 73
Oakland Home	Oakland	174,788 73		9,798 28	2,296 80	5,554 86		192,438 67
State Investment	San Francisco	212,162 15		4,840 58	4,281 32	10,702 00		231,989 05
Sun	San Francisco	155,647 69	63,786 04		14,676 90	6,270 38		240,381 01
Union	San Francisco	288,085 71	98,601 54	18,640 49	23,602 02	8,940 00		437,872 76
Western Fire and Marine	San Francisco	209,353 66			10,235 90			219,589 56
Totals		$2,700,908 47	$452,562 43	$72,506 03	$149,547 45	$57,388 27		$3,432,912 65

TABLE No. 16.

Showing the various items composing the Expenditures of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—California Companies.

NAME.	Location.	Fire Losses.	Marine Losses.	Dividends.	Commissions and Brokerage.	Office Salaries.	State, National, and Local Taxes.	All other Expenditures.	Total Expenditures.
California	San Francisco	$211,174 92	$19,780 27	$54,000 00	$64,821 90	$36,486 41	$10,427 49	$57,598 75	$454,289 74
Commercial	San Francisco	158,898 72	20,388 64	24,000 00	65,642 33	26,660 15	4,430 83	22,145 61	322,166 28
Fireman's Fund	San Francisco	325,698 74	90,493 15	90,000 00	87,478 99	69,034 72	13,676 65	73,211 19	749,593 44
Home Mutual	San Francisco	140,242 46		36,000 00	115,844 69	37,698 21	6,880 68	50,767 60	387,433 64
Oakland Home	Oakland	91,351 64		12,147 00	30,491 84	23,402 55	4,253 50	18,599 14	180,245 67
State Investment	San Francisco	140,957 88	1,007 72	23,745 00	47,370 83	18,054 20	2,484 02	17,451 15	251,070 80
Sun	San Francisco	78,840 61	29,839 15	30,000 00	31,837 87	25,709 37	1,659 62	17,882 80	215,769 42
Union	San Francisco	182,746 67	39,469 38	90,030 00	55,568 87	55,530 31	11,545 88	35,207 32	470,098 43
Western Fire and Marine	San Francisco	154,523 23			47,387 85	16,605 00	2,192 14	20,418 31	241,126 53
Totals		$1,484,434 87	$200,978 31	$359,922 00	$546,445 17	$309,180 92	$57,550 81	$313,281 87	$3,271,793 95

TABLE NO. 17.

Showing amount of Risks Written, Premiums Received, and Amount of Risks in force, on the thirty-first day of December, 1884, with Premiums thereon, of Fire and Marine Insurance Companies doing business in California—California Companies.

NAME.	Location.	RISKS WRITTEN DURING THE YEAR.				Total Premiums.
		Fire.	Premiums.	Marine.	Premiums.	
California	San Francisco	$23,111,558 00	$464,892 58	$3,261,302 00	$91,526 31	$556,418 89
Commercial	San Francisco	21,848,203 00	342,637 99	1,902,070 00	37,287 70	379,925 69
Fireman's Fund	San Francisco	56,025,171 00	785,999 57	15,259,113 00	305,600 60	1,091,600 17
Home Mutual	San Francisco	33,362,712 00	509,933 02			509,933 02
Oakland Home	Oakland	17,475,000 00	262,120 71			262,120 71
State Investment	San Francisco	16,478,281 00	249,170 49			249,170 49
Sun	San Francisco	14,735,526 00	213,743 68	3,081,536 00	75,767 45	289,511 13
Union	San Francisco	27,266,090 00	347,570 75	11,905,650 00	115,116 95	462,687 70
Western Fire and Marine	San Francisco	14,740,433 00	256,943 97			256,943 97
Totals		$235,042,974 00	$3,433,012 76	$35,409,671 00	$625,299 01	$4,058,311 77

NAME.	Location.	RISKS IN FORCE DECEMBER 31, 1884.				Total Premiums
		Fire.	Premiums.	Marine.	Premiums.	
California	San Francisco	$30,954,447 00	$447,037 32	$703,873 00	$48,630 21	$495,667 53
Commercial	San Francisco	14,833,206 00	263,717 85	290,432 00	19,512 37	283,230 22
Fireman's Fund	San Francisco	50,436,139 00	666,394 20	2,050,467 00	108,624 45	775,018 65
Home Mutual	San Francisco	33,595,519 00	527,334 27			527,334 27
Oakland Home	Oakland	10,826,029 00	163,319 02			163,319 02
State Investment	San Francisco	14,906,688 00	234,861 82			234,861 82
Sun	San Francisco	11,577,886 00	157,994 32	1,162,302 00	42,262 39	200,256 71
Union	San Francisco	25,227,255 00	341,438 56	902,242 00	35,434 40	376,872 96
Western Fire and Marine	San Francisco	11,589,589 00	184,792 16			184,792 16
Totals		$203,946,758 00	$2,986,889 52	$5,109,316 00	$254,463 82	$3,241,353 34

TABLE NO. 18.

Summary of Assets, Liabilities, Income, Expenditures, etc., and amount of Surplus over Capital Stock, of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—Companies of other States.

NAME.	Location.	Cash Capital paid up.	Assets.	Liabilities, Capital not included.
Ætna	Hartford	$4,000,000 00	$9,013,517 40	$2,049,026 85
Agricultural	Watertown, New York	500,000 00	1,782,720 55	1,148,169 26
Allemannia	Pittsburgh	200,000 00	339,882 55	102,819 48
Amazon	Cincinnati	300,000 00	558,258 98	126,770 68
American	Newark	600,000 00	1,721,424 28	276,674 23
American Central	St. Louis	600,000 00	1,178,273 06	407,667 68
American Fire	Philadelphia	400,000 00	1,768,092 25	961,449 51
Boatman's Fire and Marine	Pittsburgh	250,000 00	399,984 71	110,649 04
Citizens'	St. Louis	200,000 00	425,237 57	47,101 26
Citizens'	New York	300,000 00	1,090,667 62	481,025 34
Connecticut	Hartford	1,000,000 00	1,868,881 58	627,237 58
Continental	New York	1,000,000 00	4,938,501 92	2,403,280 10
Eliot	Boston	200,000 00	365,294 32	92,105 36
Farragut Fire	New York	200,000 00	378,635 06	113,681 55
Fire Association of Philadelphia	Philadelphia	500,000 00	4,106,425 90	2,927,629 05
Firemen's	Baltimore	378,000 00	538,873 72	67,030 58
German	Freeport, Illinois	200,000 00	1,650,798 95	1,226,800 50
German-American	New York	1,000,000 00	4,221,336 97	1,531,443 19
German Fire	Pittsburgh	200,000 00	448,457 72	166,414 06
Germania	New York	1,000,000 00	2,700,075 63	1,132,734 13
Germania	New Orleans	200,000 00	275,626 30	60,462 20
Girard	Philadelphia	300,000 00	1,227,662 70	386,273 41
Glen's Falls	Glen's Falls, New York	200,000 00	1,368,025 19	504,151 52
Hanover	New York	1,000,000 00	2,546,512 86	1,087,065 78
Hartford	Hartford	1,250,000 00	4,491,830 01	2,012,427 36
Home	New York	3,000,000 00	7,395,090 55	3,253,363 64
Howard	New York	500,000 00	747,280 05	244,774 94
Insurance Company of North America	Philadelphia	3,000,000 00	9,087,235 40	2,958,355 16
Insurance Company of the State of Pennsylvania	Philadelphia	200,000 00	626,598 24	237,172 55
Mechanics' Fire	Brooklyn	250,000 00	433,545 03	157,662 92
Merchants'	Newark	400,000 00	1,207,589 39	466,887 33
National Fire	New York	200,000 00	401,037 79	144,935 79
National Fire	Hartford	1,000,000 00	1,770,302 96	344,556 53
New Hampshire Fire	Manchester, New Hampshire	500,000 00	1,014,579 95	300,519 45
New Orleans Insurance Association	New Orleans	300,000 00	521,986 56	209,471 06

New York Bowery Fire	New York	300,000 00	883,269 06	332,954 62
Niagara	New York	500,000 00	1,851,597 39	1,020,149 50
North American	Boston	200,000 00	331,611 61	84,027 30
Northwestern National	Milwaukee	600,000 00	1,223,352 87	409,423 83
Oregon Fire and Marine	Portland	220,100 00	268,987 56	30,694 41
Orient	Hartford	1,000,000 00	1,474,443 19	400,965 92
Pacific Fire	New York	200,000 00	753,415 30	214,788 41
Pennsylvania	Pittsburgh	200,000 00	306,719 38	108,518 41
Pennsylvania Fire	Philadelphia	400,000 00	2,378,918 23	1,077,146 37
People's	Pittsburgh	200,000 00	338,894 78	97,242 30
Phenix of Brooklyn	New York	1,000,000 00	4,342,430 25	2,701,439 07
Phœnix	Hartford	2,000,000 00	4,316,957 91	1,544,270 72
Prescott	Boston	200,000 00	352,935 32	137,348 54
Providence-Washington	Providence, Rhode Island	400,000 00	870,054 23	420,235 62
St. Paul	St. Paul, Minnesota	500,000 00	1,164,006 70	397,396 19
Security	New Haven	200,000 00	400,708 77	150,524 57
Springfield Fire	Springfield, Massachusetts	1,000,000 00	2,562,510 29	1,326,136 18
Teutonia	New Orleans	250,000 00	404,030 17	79,500 17
Traders'	Chicago	500,000 00	1,164,818 02	358,245 67
Union	Philadelphia	375,000 00	866,429 80	486,758 86
United States Fire	New York	250,000 00	561,579 05	90,560 17
Washington Fire and Marine	Boston	1,000,000 00	1,607,414 78	527,524 18
Williamsburg City Fire	Brooklyn	250,000 00	1,190,980 49	501,911 47
Totals		$37,073,100 00	$102,226,308 87	$40,861,551 55

TABLE No. 18—Continued.

NAME.	Location.	Income.	Expenditures.	Losses Incurred during the year.	Net Surplus.
Ætna	Hartford	$2,955,009 55	$2,887,570 62	$1,478,383 42	$2,964,490 55
Agricultural	Watertown, New York	846,271 66	738,778 11	332,457 05	134,551 29
Allemannia	Pittsburgh	200,739 23	201,537 09	121,106 00	37,063 07
Amazon	Cincinnati	167,646 71	191,522 60	109,823 51	131,488 30
American	Newark	401,632 26	340,705 43	143,956 99	844,750 05
American Central	St. Louis	570,323 22	563,597 28	345,944 74	170,605 38
American Fire	Philadelphia	921,751 56	952,638 94	605,050 38	406,642 74
Boatman's Fire and Marine	Pittsburgh	167,271 63	176,601 56	118,413 62	39,335 67
Citizens'	St. Louis	85,991 98	72,348 20	30,565 00	178,136 31
Citizens'	New York	778,768 16	703,523 40	345,901 66	309,642 28
Connecticut	Hartford	931,356 54	862,468 25	530,571 83	241,644 00
Continental	New York	2,934,722 53	2,906,576 51	1,666,981 50	1,535,221 82
Eliot	Boston	137,126 53	154,492 77	85,128 76	73,188 96
Farragut Fire	New York	174,661 85	181,351 22	80,832 76	64,953 51
Fire Association of Philadelphia	Philadelphia	1,659,063 54	1,716,225 29	1,035,496 00	678,796 85
Firemen's	Baltimore	123,826 57	109,766 14	42,892 73	93,843 14
German	Freeport, Illinois	985,760 64	896,314 65	443,809 72	223,998 45
German-American	New York	2,035,705 09	1,776,700 39	1,039,317 36	1,689,893 78
German Fire	Pittsburgh	252,514 26	244,201 64	141,442 63	82,043 66
Germania	New York	1,618,643 04	1,610,807 77	975,571 26	567,341 50
Germania	New Orleans	151,992 48	113,286 26	72,370 00	15,164 10
Girard	Philadelphia	378,842 93	396,315 75	189,507 49	541,389 29
Glen's Falls	Glen's Falls, New York	570,972 54	509,892 96	311,209 04	663,873 67
Hanover	New York	1,520,181 68	1,573,115 11	916,290 92	459,447 08
Hartford	Hartford	2,562,150 96	2,507,832 51	1,522,282 13	1,229,402 65
Home	New York	3,642,308 85	3,711,224 39	2,164,128 20	1,141,726 91
Howard	New York	313,667 41	477,978 04	315,676 75	2,505 11
Insurance Company of North America	Philadelphia	4,106,149 81	3,986,546 44	2,366,297 72	3,128,880 24
Insurance Company of the State of Pennsylvania	Philadelphia	249,926 62	294,572 34	185,830 81	189,425 69
Mechanics' Fire	Brooklyn	243,065 04	269,262 87	141,670 15	25,882 11
Merchants'	Newark	638,531 08	653,178 66	407,457 78	340,702 06
National Fire	New York	208,826 85	231,161 05	134,537 52	56,102 00
National Fire	Hartford	546,424 34	481,189 09	235,008 61	425,746 43
New Hampshire Fire	Manchester, New Hampshire	514,257 15	476,070 39	264,925 00	214,060 50
New Orleans Insurance Association	New Orleans	492,875 43	469,232 88	328,848 50	12,515 50
New York Bowery Fire	New York	452,140 23	484,784 82	318,388 06	250,314 44
Niagara	New York	1,383,932 33	1,373,510 90	855,062 72	331,447 89
North American	Boston	114,964 30	117,406 51	56,557 36	47,584 31
Northwestern National	Milwaukee	533,630 28	493,188 02	265,272 14	213,929 04

Oregon Fire and Marine	Portland	62,032 49	32,714 92	34,403 67	18,183 15
Orient	Hartford	586,025 21	504,712 62	327,017 84	73,477 27
Pacific Fire	New York	303,287 95	291,248 25	164,531 51	338,626 89
Pennsylvania	Pittsburgh	165,972 46	175,771 22	113,053 67	----
Pennsylvania Fire	Philadelphia	953,240 22	894,179 50	594,676 82	901,771 86
People's	Pittsburgh	164,198 23	165,840 48	108,921 87	43,035 48
Phenix of Brooklyn	New York	4,452,419 70	3,898,081 10	2,388,791 13	640,991 18
Phœnix	Hartford	2,247,464 21	2,242,963 14	1,285,254 17	772,687 19
Prescott	Boston	201,019 68	203,737 90	126,498 74	15,586 78
Providence-Washington	Providence, Rhode Island	789,407 39	905,139 78	637,501 61	49,818 61
St. Paul	St. Paul, Minnesota	583,469 14	565,979 24	309,150 64	266,610 51
Security	New Haven	291,731 84	248,873 77	171,070 27	50,184 20
Springfield Fire	Springfield, Massachusetts	1,731,959 19	1,659,408 90	1,057,470 60	236,374 11
Teutonia	New Orleans	169,161 24	145,007 12	100,951 00	74,530 00
Traders'	Chicago	551,758 66	528,685 51	341,773 28	306,572 35
Union	Philadelphia	667,630 61	881,521 66	501,286 07	4,670 94
United States Fire	New York	129,051 59	128,105 04	46,125 25	221,018 88
Washington Fire and Marine	Boston	873,458 00	841,074 82	546,274 00	83,890 60
Williamsburg City Fire	Brooklyn	724,535 64	688,420 35	336,326 56	439,269 02
Totals		$52,222,450 31	$50,908,942 17	$29,916,046 52	$24,295,029 35

TABLE No. 19.

Showing the various items composing the Assets of the Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—Companies of other States.

NAME.	Location.	Real Estate.	Loans on Bonds and Mortgages.	Stocks and Bonds Owned by the Company.	Amount Loaned on Stocks and other securities as collateral.	Cash in Office and Banks.
Ætna	Hartford	$362,000 00	$43,800 00	$7,222,520 00	$15,170 00	$1,015,821 60
Agricultural	Watertown, New York	157,059 48	885,597 21	395,081 50	57,544 66	182,302 59
Allemannia	Pittsburgh	83,800 00	65,610 50	76,260 00	41,000 00	36,259 78
Amazon	Cincinnati	244,650 00	39,557 80	132,962 50	83,507 00	26,952 18
American	Newark	390,859 37	645,296 75	610,000 00		36,276 02
American Central	St. Louis			860,490 00	155,000 00	88,382 18
American Fire	Philadelphia	137,100 00	363,139 50	1,090,804 16	35,000 00	78,066 13
Boatman's Fire and Marine	Pittsburgh	66,933 96	60,253 34	211,409 63	22,068 00	14,941 04
Citizens'	St. Louis	13,000 00	53,425 00	232,685 00	95,000 00	13,923 19
Citizens'	New York	112,000 00	57,900 00	678,225 00	138,800 00	24,723 33
Connecticut	Hartford	57,000 00	523,550 00	1,104,689 00	22,750 00	90,645 35
Continental	New York	659,250 00	336,750 00	3,118,595 00	65,000 00	174,135 62
Eliot	Boston		39,500 00	287,464 25		15,416 25
Farragut Fire	New York	6,000 00	9,910 00	279,663 00	6,300 00	57,046 50
Fire Association of Philadelphia	Philadelphia	90,300 00	934,435 94	2,775,379 50	9,950 00	133,089 19
Firemen's	Baltimore	146,875 00		361,002 36		13,337 93
German	Freeport, Illinois	15,000 00	725,419 23	118,329 50	2,500 00	138,891 31
German-American	New York			3,835,127 50		250,558 77
German Fire	Pittsburgh	13,910 72	214,082 12	154,221 50		29,157 31
Germania	New York	510,000 00	127,450 00	1,850,190 00		36,720 77
Germania	New Orleans	78,119 11	8,516 21	108,315 00	20,400 00	19,354 68
Girard	Philadelphia	328,800 00	503,449 99	274,365 00	6,400 00	51,329 45
Glen's Falls	Glen's Falls, New York	12,675 00	497,920 75	754,975 00		57,955 48
Hanover	New York		156,250 00	2,159,598 75	3,900 00	90,769 09
Hartford	Hartford	639,675 60	972,888 89	1,847,250 50	351,125 00	294,525 64
Home	New York	655,183 97	1,005,400 00	4,767,035 00	254,050 00	251,736 41
Howard	New York	150,000 00	6,000 00	489,860 00		16,192 56
Insurance Company of North America	Philadelphia	312,861 55	1,925,916 67	5,176,650 00	382,404 00	608,458 61
Insurance Company of the State of Pennsylvania	Philadelphia	68,800 00	100,850 00	293,849 95	117,000 00	5,006 14
Mechanics' Fire	Brooklyn		139,900 00	242,628 75	4,500 00	24,936 92
Merchants'	Newark	146,131 00	440,424 50	459,654 50	28,700 00	45,595 52
National Fire	New York		53,588 98	289,480 00		29,460 00

National Fire	Hartford	30,495 98	503,750 00	1,024,634 00	18,090 00	175,695 25
New Hampshire Fire	Manchester, N. H.		107,196 86	733,410 00	62,262 50	43,076 17
New Orleans Insurance Association	New Orleans		39,907 00	263,747 50		93,798 88
New York Bowery Fire	New York		44,700 00	724,500 00	41,550 00	22,286 59
Niagara	New York	22,000 00	99,100 00	1,338,860 00		152,525 42
North American	Boston	12,114 73	45,782 02	228,878 75	11,245 00	17,389 82
Northwestern National	Milwaukee		247,500 00	746,448 00		187,691 50
Oregon Fire and Marine	Portland, Oregon		136,000 00	91,471 56	6,000 00	22,987 44
Orient	Hartford	37,115 27	239,576 67	918,184 25	87,210 00	82,883 26
Pacific Fire	New York	70,000 00	84,300 00	550,392 50	1,100 00	10,152 56
Pennsylvania	Pittsburgh	45,600 00	150,783 41	81,235 33		10,681 88
Pennsylvania Fire	Philadelphia	115,000 00	172,570 00	1,664,845 00	285,800 00	64,386 06
People's	Pittsburgh	57,000 00	163,931 35	67,815 00	14,700 00	12,139 81
Phenix of Brooklyn	New York	329,550 00	328,150 00	2,428,854 23	149,600 00	546,439 22
Phœnix	Hartford	168,255 31	159,580 00	3,268,472 47	193,735 00	287,582 39
Prescott	Boston			313,450 25		19,483 81
Providence-Washington	Providence, R. I.			633,920 00		50,653 10
St. Paul	St. Paul, Minnesota	101,764 56	148,712 03	447,575 77	279,570 73	90,171 27
Security	New Haven		58,700 00	262,159 50	17,100 00	37,119 87
Springfield Fire	Springfield, Mass.	102,950 00	307,616 67	1,792,700 00	18,675 00	32,657 93
Teutonia	New Orleans	32,750 00	32,591 66	127,605 00	113,125 30	41,772 81
Traders'	Chicago	137,195 98		904,955 00		61,474 08
Union	Philadelphia	172,190 66	40,000 00	410,015 30	51,077 63	39,084 00
United States Fire	New York		248,600 00	281,930 00	5,000 00	3,137 56
Washington Fire and Marine	Boston		45,500 00	1,224,292 00	55,000 00	140,654 67
Williamsburg City Fire	Brooklyn	448,225 86	291,000 00	272,620 50	9,500 00	80,217 54
Totals		$7,340,193 11	$14,632,331 05	$63,061,733 76	$3,338,409 82	$6,278,111 03

TABLE No. 19—Continued.

NAME.	Location.	Interest Due and Accrued.	Premiums in course of Collection.	Bills Receivable, not matured, taken for Marine and Inland Risks.	All other Assets.	Total Assets.
Ætna	Hartford	$1,463 48	$352,742 32			$9,013,517 40
Agricultural	Watertown, New York	26,510 60	57,512 39	$20,512 12	$600 00	1,782,720 55
Allemannia	Pittsburgh	3,045 03	30,024 91	2,132 33	1,750 00	339,882 55
Amazon	Cincinnati	2,723 61	24,853 59	1,384 69	1,667 61	558,258 98
American	Newark	18,013 16	16,463 74		4,515 24	1,721,424 28
American Central	St. Louis	10,846 66	63,554 22			1,178,273 06
American Fire	Philadelphia	7,694 33	48,648 43		7,639 70	1,768,092 25
Boatman's Fire and Marine	Pittsburgh	648 11	22,378 08	690 00	662 55	399,984 71
Citizens'	St. Louis	2,580 00	14,624 38			425,237 57
Citizens'	New York	5,511 17	28,948 14		44,559 98	1,690,667 62
Connecticut	Hartford		70,247 23			1,868,881 58
Continental	New York	60,884 98	485,272 26	32,614 06	6,000 00	4,938,501 92
Eliot	Boston	3,795 61	19,007 49	110 72		365,294 32
Farragut Fire	New York	380 88	19,134 13		200 55	378,635 06
Fire Association of Philadelphia	Philadelphia	39,927 00	114,869 09		8,475 18	4,106,425 90
Firemen's	Baltimore	9,189 93	7,498 51		969 99	538,873 72
German	Freeport, Illinois	41,242 45	77,688 11	531,728 35		1,650,798 95
German-American	New York	945 00	134,705 70			4,221,336 97
German Fire	Pittsburgh	4,041 20	32,884 87		160 00	448,457 72
Germania	New York	3,830 25	11,578 01		160,306 60	2,700,075 63
Germania	New Orleans	2,250 00	37,222 60	1,448 70		275,626 30
Girard	Philadelphia	8,335 30	48,099 78		6,883 18	1,227,662 70
Glen's Falls	Glen's Falls, New York	5,767 25	38,731 71			1,368,025 19
Hanover	New York	10,558 67	8,595 99		116,840 36	2,546,512 86
Hartford	Hartford	23,039 85	347,772 36		15,552 17	4,491,830 01
Home	New York	105,682 45	298,598 23	57,404 49		7,395,090 55
Howard	New York	3,263 75	49,098 01		32,865 73	747,280 05
Insurance Company of North America	Philadelphia	26,468 40	423,027 17	145,192 81	86,256 19	9,087,235 40
Insurance Company of the State of Pennsylvania	Philadelphia	6,181 47	24,208 71	8,384 65	2,317 32	626,598 24
Mechanics' Fire	Brooklyn	1,743 51	19,835 85			433,545 03
Merchants'	Newark	19,412 60	66,634 59		1,036 68	1,207,589 39
National Fire	New York	1,165 13	27,343 68			401,037 79
National Fire	Hartford	17,637 73				1,770,302 96
New Hampshire Fire	Manchester, N. H.	7,173 00	61,461 42			1,014,579 95
New Orleans Insurance Association	New Orleans	4,946 45	26,774 15	2,061 23	90,751 35	521,986 56
New York Bowery Fire	New York	1,565 25	48,667 22			883,269 06
Niagara	New York	17,148 00	220,052 48		1,911 49	1,851,597 39

North American	Boston	1,684 16	14,414 73		102 40	331,611 61
Northwestern National	Milwaukee	3,124 28	33,415 14		5,173 95	1,223,352 87
Oregon Fire and Marine	Portland, Oregon	3,171 95	9,356 61			268,987 56
Orient	Hartford	16,544 07	92,629 67		300 00	1,474,443 19
Pacific Fire	New York	6,646 67	30,698 57		125 00	753,415 30
Pennsylvania	Pittsburgh	3,599 01	14,518 75	100 00	201 00	306,719 38
Pennsylvania Fire	Philadelphia	3,717 23	72,599 94			2,378,918 23
People's	Pittsburgh	4,860 98	12,447 64		6,000 00	338,894 78
Phenix of Brooklyn	New York	24,295 04	514,867 13	17,302 01	3,372 62	4,342,430 25
Phœnix	Hartford	7,641 43	230,732 98		958 33	4,316,957 91
Prescott	Boston	2,233 32	17,767 94			352,935 32
Providence-Washington	Providence, R. I.		93,463 77	92,017 36		870,054 23
St. Paul	St. Paul, Minnesota	21,128 86	58,865 30	15,065 32	1,152 86	1,164,006 70
Security	New Haven	1,034 92	20,471 86	3,231 75	890 87	400,708 77
Springfield Fire	Springfield, Mass.	33,144 89	179,000 00	92,447 75	3,318 05	2,562,510 29
Teutonia	New Orleans		34,395 72	14,036 16	7,753 52	404,030 17
Traders'	Chicago	4,001 66	28,502 74		28,688 56	1,164,818 02
Union	Philadelphia	3,228 95	108,750 27	29,825 02	12,257 37	866,429 80
United States Fire	New York	4,003 83	18,907 66			561,579 05
Washington Fire and Marine	Boston	4,582 57	92,089 26	45,296 28		1,607,414 78
Williamsburg City Fire	Brooklyn	7,616 01	72,566 54		9,234 04	1,190,980 49
Totals		$661,872 09	$5,129,221 77	$1,112,985 80	$671,450 44	$102,226,308 87

TABLE No. 20.

Showing the various items composing the Liabilities, except Capital Stock, of Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—Companies of other States.

NAME.	Location.	Losses Adjusted.	Losses Unadjusted.	Losses Resisted.	Cash Dividends.
Ætna	Hartford	$33,940 76	$179,262 34	$16,896 35	
Agricultural	Watertown, New York	10,775 00	18,022 00	14,643 00	$25 00
Allemannia	Pittsburgh	9,326 76	2,750 00		
Amazon	Cincinnati	7,031 81	10,400 00	4,664 00	35 70
American	Newark	14,430 70	14,277 01	1,000 00	7,540 15
American Central	St. Louis	21,232 09	37,904 60	9,172 88	
American Fire	Philadelphia	32,575 04	60,259 30	15,801 64	445 00
Boatman's Fire and Marine	Pittsburgh	15,743 68	1,416 63	1,398 93	
Citizens'	St. Louis	2,700 00	2,275 00	2,000 00	
Citizens'	New York	19,267 56	39,087 74	2,599 48	99 90
Connecticut	Hartford		86,880 00	9,777 78	
Continental	New York		315,285 68	44,953 00	338 80
Eliot	Boston	10,805 00		2,000 00	50 00
Farragut Fire	New York		8,710 77	5,479 01	
Fire Association of Philadelphia	Philadelphia	70,773 65	66,396 45	41,102 06	
Firemen's	Baltimore	4,278 28	4,170 00		365 58
German	Freeport, Illinois	63,096 80		1,900 00	
German-American	New York	80,555 44	80,183 92	10,794 30	
German Fire	Pittsburgh	11,681 90			
Germania	New York	82,352 02	70,623 00	31,860 22	
Germania	New Orleans	11,252 38			12,183 50
Girard	Philadelphia		27,466 51	2,994 51	
Glen's Falls	Glen's Falls, New York	17,142 44	13,346 65	6,250 00	
Hanover	New York	72,483 92	65,260 90	28,414 07	
Hartford	Hartford	68,325 67	152,045 71	38,598 31	
Home	New York	67,772 06	280,469 75	50,056 83	
Howard	New York	34,309 02		5,260 40	72 00
Insurance Company of North America	Philadelphia	86,635 84	271,923 44	67,362 72	
Insurance Company of the State of Pennsylvania	Philadelphia	47,867 00			340 00
Mechanics' Fire	Brooklyn		24,134 07		
Merchants'	Newark	30,742 41	25,058 97	22,522 94	
National Fire	New York	19,002 42		4,625 27	
National Fire	Hartford	14,364 24	30,302 59	6,000 00	
New Hampshire Fire	Manchester, New Hampshire	27,300 00	11,140 50	2,300 00	
New Orleans Insurance Association	New Orleans	25,387 00	12,413 00	2,200 00	2,724 00

New York Bowery Fire	New York	40,000 00	27,638 00	2,750 00	
Niagara	New York	158,975 61		7,280 00	503 00
North American	Boston	3,436 13	2,357 50		
Northwestern National	Milwaukee	22,923 93	30,090 00	3,225 00	
Oregon Fire and Marine	Portland, Oregon		2,487 06		
Orient	Hartford	64,342 93		2,150 00	
Pacific Fire	New York	9,000 00	22,668 00	1,340 00	
Pennsylvania	Pittsburgh	16,175 18	7,645 00		882 50
Pennsylvania Fire	Philadelphia	99,283 77			
People's	Pittsburgh	17,325 83	7,583 39	1,100 00	
Phenix of Brooklyn	New York		267,781 07	20,016 80	
Phœnix	Hartford	238,375 89		19,232 89	
Prescott	Boston	10,337 68	4,550 00	500 00	
Providence-Washington	Providence, Rhode Island	11,756 82	85,063 69	14,372 58	
St. Paul	St. Paul, Minnesota	11,740 68	28,873 10	5,644 56	
Security	New Haven	10,457 88	9,381 88	2,800 00	
Springfield Fire	Springfield, Massachusetts	77,716 17	101,833 92	14,336 53	
Teutonia	New Orleans	9,800 00			936 10
Traders'	Chicago	33,218 07	24,494 40	8,564 78	
Union	Philadelphia	21,800 52	46,347 86	6,000 00	2,480 33
United States Fire	New York	400 15	3,377 00		106 25
Washington Fire and Marine	Boston		127,320 00		
Williamsburg City Fire	Brooklyn	6,907 82	27,827 13	3,400 00	115 00
Totals		$1,877,125 95	$2,745,785 53	$565,370 84	$29,242 81

TABLE NO. 20—Continued.

NAME.	Location.	Fire Reinsurance.	Marine. Reinsurance.	All other Claims.	Total Liabilities, Capital not included.	Net Surplus.
Ætna	Hartford	$1,707,513 47	$37,592 93	$73,821 00	$2,049,026 85	$2,964,490 55
Agricultural	Watertown, New York	1,088,037 59		16,666 67	1,148,169 26	134,551 29
Allemannia	Pittsburgh	89,942 72		800 00	102,819 48	37,063 07
Amazon	Cincinnati	95,726 26		8,912 91	126,770 68	131,488 30
American	Newark	227,367 55		12,058 82	276,674 23	844,750 05
American Central	St. Louis	329,824 98		9,533 13	407,667 68	170,605 38
American Fire	Philadelphia	851,692 78		675 75	961,449 51	406,642 74
Boatman's Fire and Marine	Pittsburgh	73,064 67	2,477 55	9,547 58	110,649 04	39,335 67
Citizens'	St. Louis	36,420 00		3,706 26	47,101 26	178,136 31
Citizens'	New York	413,430 82		6,539 84	481,025 34	309,642 28
Connecticut	Hartford	530,579 80			627,237 58	241,644 00
Continental	New York	1,928,299 35	25,394 75	89,008 52	2,403,280 10	1,535,221 82
Eliot	Boston	75,525 36		3,725 00	92,105 36	73,188 96
Farragut Fire	New York	94,643 93		4,847 84	113,681 55	64,953 51
Fire Association of Philadelphia	Philadelphia	2,749,356 89			2,927,629 05	678,796 85
Firemen's	Baltimore	57,362 32		854 40	67,030 58	93,843 14
German	Freeport, Illinois	1,149,732 15		12,071 55	1,226,800 50	223,998 45
German-American	New York	1,325,313 65		34,595 88	1,531,443 19	1,689,893 78
German Fire	Pittsburgh	153,532 16		1,200 00	166,414 06	82,043 66
Germania	New York	946,773 89		1,125 00	1,132,734 13	567,341 50
Germania	New Orleans	37,026 32			60,462 20	15,164 10
Girard	Philadelphia	341,950 73		13,861 66	386,273 41	541,389 29
Glen's Falls	Glen's Falls, New York	461,675 84		5,736 59	504,151 52	663,873 67
Hanover	New York	919,616 89		1,290 00	1,087,065 78	459,447 08
Hartford	Hartford	1,719,707 67		33,750 00	2,012,427 36	1,229,402 65
Home	New York	2,847,565 00		7,500 00	3,253,363 64	1,141,726 91
Howard	New York	123,544 81		81,588 71	244,774 94	2,505 11
Insurance Company of North America	Philadelphia	2,285,231 42	230,977 42	16,224 32	2,958,355 16	3,128,880 24
Insurance Co. of the State of Pennsylvania	Philadelphia	187,542 55		1,423 00	237,172 55	189,425 69
Mechanics' Fire	Brooklyn	131,528 85		2,000 00	157,662 92	25,882 11
Merchants'	Newark	366,329 44		22,233 57	466,887 33	340,702 06
National Fire	New York	100,694 93		20,613 17	144,935 79	56,102 00
National Fire	Hartford	293,889 70			344,556 53	425,746 43
New Hampshire Fire	Manchester, New Hampshire	247,486 68		12,292 27	300,519 45	214,060 50
New Orleans Insurance Association	New Orleans	162,006 84	4,740 22		209,471 06	12,515 50
New York Bowery Fire	New York	218,358 28		44,208 34	332,954 62	250,314 44
Niagara	New York	843,390 89		10,000 00	1,020,149 50	331,447 89

North American	Boston	75,014 56		3,219 11	84,027 30	47,584 31
Northwestern National	Milwaukee	350,079 73		3,105 17	409,423 83	213,929 04
Oregon Fire and Marine	Portland, Oregon	23,963 05		4,244 30	30,694 41	18,183 15
Orient	Hartford	321,698 56		12,774 43	400,965 92	73,477 27
Pacific Fire	New York	173,397 75		8,382 66	214,788 41	338,626 89
Pennsylvania	Pittsburgh	82,859 55		956 18	108,518 41	
Pennsylvania Fire	Philadelphia	977,862 60			1,077,146 37	901,771 86
People's	Pittsburgh	70,555 71		677 37	97,242 30	43,035 48
Phenix of Brooklyn	New York	2,292,934 37	98,051 60	22,625 23	2,701,439 07	640,991 18
Phœnix	Hartford	1,286,661 94			1,544,270 72	772,687 19
Prescott	Boston	118,277 21		3,683 65	137,348 54	15,586 78
Providence-Washington	Providence, Rhode Island	267,122 78	41,919 75		420,235 62	49,818 61
St. Paul	St. Paul, Minnesota	338,512 10	9,330 00	3,295 75	397,396 19	266,610 51
Security	New Haven	109,635 80	13,799 44	4,449 57	150,524 57	50,184 20
Springfield Fire	Springfield, Massachusetts	1,105,399 56		26,850 00	1,326,136 18	236,374 11
Teutonia	New Orleans	65,520 57	3,243 50		79,500 17	74,530 00
Traders'	Chicago	258,217 51		33,750 91	358,245 67	306,572 35
Union	Philadelphia	220,318 04	53,361 95	136,450 16	486,758 86	4,670 94
United States Fire	New York	56,507 03	3,523 53	26,646 21	90,560 17	221,018 88
Washington Fire and Marine	Boston	358,282 58	37,123 68	797 92	523,524 18	83,890 60
Williamsburg City Fire	Brooklyn	440,167 54		23,493 98	501,911 47	439,269 02
Totals		$34,204,675 72	$561,536 32	$877,814 38	$40,861,551 55	$24,295,029 35

TABLE NO. 21.

Showing the various items composing the Income of the Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—Companies of other States.

NAME.	Location.	Fire Premiums.	Marine Premiums.	Interest on Bonds and Mortgages.
Ætna	Hartford	$2,358,727 57	$167,584 69	$2,180 00
Agricultural	Watertown, New York	762,214 98		50,465 47
Allemannia	Pittsburgh	182,365 28		4,814 86
Amazon	Cincinnati	147,077 18		2,215 80
American	Newark	331,419 81		36,686 93
American Central	St. Louis	512,396 78		
American Fire	Philadelphia	829,995 74		15,838 09
Boatman's Fire and Marine	Pittsburgh	137,881 36	7,192 83	3,649 27
Citizens'	St. Louis	62,676 85	5,682 43	1,750 00
Citizens'	New York	736,048 33		3,450 08
Connecticut	Hartford	842,300 38		26,661 88
Continental	New York	2,320,840 78	384,079 38	18,948 68
Eliot	Boston	119,064 15		1,887 70
Farragut Fire	New York	158,768 74		838 46
Fire Association of Philadelphia	Philadelphia	1,431,891 64		75,210 34
Firemen's	Baltimore	105,900 45		
German	Freeport, Illinois	920,577 88		
German-American	New York	1,870,098 28		
German Fire	Pittsburgh	232,927 78		12,293 48
Germania	New York	1,516,943 95		9,170 75
Germania	New Orleans	114,131 86	11,566 33	681 28
Girard	Philadelphia	310,902 64	214 70	31,661 24
Glen's Falls	Glen's Falls, New York	518,379 34		21,487 39
Hanover	New York	1,415,498 59		9,399 25
Hartford	Hartford	2,342,899 34		59,767 72
Home	New York	3,353,158 87		71,219 91
Howard	New York	281,396 53		757 50
Insurance Company of North America	Philadelphia	2,176,580 23	1,487,893 34	107,521 46
Insurance Company of the State of Pennsylvania	Philadelphia	142,812 64	72,007 27	4,952 50
Mechanics' Fire	Brooklyn	225,604 70		9,200 91
Merchants'	Newark	582,219 27		26,013 44
National Fire	New York	194,298 02		
National Fire	Hartford	451,709 23		30,307 74
New Hampshire Fire	Manchester, New Hampshire	464,775 78		
New Orleans Insurance Association	New Orleans	415,291 30	62,012 85	

New York Bowery Fire	New York	418,988 67		2,637 00
Niagara	New York	1,303,673 29		6,234 00
North America	Boston	97,736 65		4,310 56
Northwestern National	Milwaukee	483,605 31		11,695 74
Oregon Fire and Marine	Portland, Oregon	44,213 83		
Orient	Hartford	518,034 79		12,486 27
Pacific Fire	New York	274,345 10		3,404 61
Pennsylvania	Pittsburgh	148,799 08		8,986 91
Pennsylvania Fire	Philadelphia	835,499 06		9,323 02
People's	Pittsburgh	129,658 41		7,859 57
Phenix of Brooklyn	New York	3,413,073 69	887,336 53	17,701 60
Phœnix	Hartford	2,038,470 52		9,830 30
Prescott	Boston	184,565 41		
Providence-Washington	Providence, Rhode Island	414,285 42	339,395 05	
St. Paul	St. Paul, Minnesota	469,052 22	46,870 26	11,013 07
Security	New Haven	208,872 29	65,391 19	3,502 00
Springfield Fire	Springfield, Massachusetts	1,612,652 73		17,708 70
Teutonia	New Orleans	125,237 41	22,920 00	
Traders'	Chicago	501,713 08	2,431 11	
Union	Philadelphia	334,935 12	292,645 16	1,820 00
United States Fire	New York	95,442 69	8,965 47	15,035 00
Washington Fire and Marine	Boston	614,967 70	186,090 09	4,153 89
Williamsburg City Fire	Brooklyn	681,287 99		22,208 20
Totals		$43,518,886 71	$4,050,278 68	$808,942 57

TABLE No. 21—Continued.

NAME.	Location.	Interest and Dividends from other sources.	Rents.	Received from all other sources.	Total Income.
Ætna	Hartford	$416,550 00	$9,967 29		$2,955,009 55
Agricultural	Watertown, New York	27,110 21	6,481 00		846,271 66
Allemannia	Pittsburgh	8,127 69	5,431 40		200,739 23
Amazon	Cincinnati	12,335 81	6,017 92		167,646 71
American	Newark	25,750 00	10,775 52		404,632 26
American Central	St. Louis	57,926 44			570,323 22
American Fire	Philadelphia	65,601 12		$10,316 61	921,751 56
Boatman's Fire and Marine	Pittsburg	13,408 50	3,130 37	2,009 30	167,271 63
Citizens'	St. Louis	15,882 70			85,991 98
Citizens'	New York	34,516 47	4,753 28		778,768 16
Connecticut	Hartford	62,394 28			931,356 54
Continental	New York	164,873 95	45,979 74		2,934,722 53
Eliot	Boston	13,442 29		2,732 39	137,126 53
Farragut Fire	New York	14,537 97	516 68		174,661 85
Fire Association of Philadelphia	Philadelphia	142,327 70	5,267 26	4,366 60	1,659,063 54
Firemen's	Baltimore	16,749 06	1,177 06		123,826 57
German	Freeport, Illinois	63,885 19		1,297 57	985,760 64
German-American	New York	165,606 81			2,035,705 09
German Fire	Pittsburgh	6,839 00	454 00		252,514 26
Germania	New York	92,528 34			1,618,643 04
Germania	New Orleans	22,053 01	3,560 00		151,992 48
Girard	Philadelphia	17,720 87	18,343 48		378,842 93
Glen's Falls	Glen's Falls, New York	30,880 81	225 00		570,972 54
Hanover	New York	95,283 84			1,520,181 68
Hartford	Hartford	131,538 70	27,945 20		2,562,150 96
Home	New York	217,930 07			3,642,308 85
Howard	New York	25,973 61	3,200 00	2,339 77	313,667 41
Insurance Company of North America	Philadelphia	280,321 55		53,833 23	4,106,149 81
Insurance Company of the State of Pennsylvania	Philadelphia	23,541 70	4,533 10	79 41	247,926 62
Mechanics' Fire	Brooklyn	8,259 43			243,065 04
Merchants'	Newark	25,090 25	5,208 12		638,531 08
National Fire	New York	14,195 97		332 86	208,826 85
National Fire	Hartford	61,456 87	2,950 50		546,424 34
New Hampshire Fire	Manchester, New Hampshire	49,481 37			514,257 15
New Orleans Insurance Association	New Orleans	15,571 28			492,875 43
New York Bowery Fire	New York	30,514 56			452,140 23
Niagara	New York	72,265 52	1,759 52		1,383,932 33

North America	Boston	12,647 00	270 09		114,964 30
Northwestern National	Milwaukee	38,329 23			533,630 28
Oregon Fire and Marine	Portland, Oregon	17,818 66			62,032 49
Orient	Hartford	54,794 15	710 00		586,025 21
Pacific Fire	New York	22,742 39	2,795 85		303,287 95
Pennsylvania	Pittsburgh	4,651 33	2,394 00	1,141 14	165,972 46
Pennsylvania Fire	Philadelphia	107,450 65	250 00	717 49	953,240 22
People's	Pittsburgh	5,442 05	5,151 50	16,086 70	164,198 23
Phenix of Brooklyn	New York	120,774 73	10,071 40	3,461 75	4,452,419 70
Phœnix	Hartford	194,786 10	4,377 29		2,247,464 21
Prescott	Boston	16,454 27			201,019 68
Providence-Washington	Providence, Rhode Island	35,726 92			789,407 39
St. Paul	St. Paul, Minnesota	49,014 15	7,519 44		583,469 14
Security	New Haven	13,954 27		12 09	291,731 84
Springfield Fire	Springfield, Massachusetts	97,762 46	3,835 30		1,731,959 19
Teutonia	New Orleans	21,003 83			169,161 24
Traders'	Chicago	40,724 14	6,000 00	890 33	551,758 66
Union	Philadelphia	23,848 32	14,382 01		667,630 61
United States Fire	New York	8,732 81		875 62	129,051 59
Washington Fire and Marine	Boston	65,711 11		2,535 21	873,458 00
Williamsburg City Fire	Brooklyn	5,402 23	15,637 22		724,535 64
Totals		$3,500,243 74	$241,070 54	$103,028 07	$52,222,450 31

TABLE NO. 22.

Showing the various items composing the Expenditures of Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—Companies of other States.

NAME.	Location.	Fire Losses.	Marine Losses.	Dividends.	Brokerage and Commissions.
Ætna	Hartford	$1,336,045 60	$88,824 80	$720,000 00	$410,795 39
Agricultural	Watertown, New York	327,060 94		49,975 00	192,960 86
Allemannia	Pittsburgh	119,834 59		16,000 00	38,438 04
Amazon	Cincinnati	106,017 05		18,013 80	31,711 42
American	Newark	145,824 18		67,540 30	51,189 61
American Central	St. Louis	320,214 31		66,056 25	72,716 57
American Fire	Philadelphia	589,598 97		40,250 00	164,177 63
Boatman's Fire and Marine	Pittsburgh	100,305 02	9,505 47	17,500 00	29,329 08
Citizens'	St. Louis	29,536 77	1,884 39	12,000 00	12,481 60
Citizens'	New York	358,555 06		40,512 80	115,676 01
Connecticut	Hartford	504,151 05		90,000 00	129,270 17
Continental	New York	1,317,782 85	388,952 88	154,301 00	477,744 60
Eliot	Boston	90,603 76		20,455 00	22,374 07
Farragut Fire	New York	92,162 30		20,000 00	24,965 16
Fire Association of Philadelphia	Philadelphia	1,037,831 05		200,000 00	301,379 78
Firemen's	Baltimore	47,354 41		22,755 60	15,985 76
German	Freeport, Illinois	454,027 33		40,000 00	295,086 92
German-American	New York	1,012,590 07		140,000 00	274,845 08
German Fire	Pittsburgh	139,580 73		24,000 00	54,872 99
Germania	New York	889,850 88		100,000 00	250,907 77
Germania	New Orleans	67,282 12	5,088 01	20,000 00	2,050 00
Girard	Philadelphia	169,830 66	1,437 91	72,000 00	64,224 66
Glen's Falls	Glen's Falls, New York	312,260 23		20,000 00	91,382 50
Hanover	New York	859,629 44		100,000 00	227,574 95
Hartford	Hartford	1,523,291 51		250,000 00	345,920 96
Home	New York	2,050,762 88		300,000 00	664,014 13
Howard	New York	344,985 05		946 50	35,277 87
Insurance Company of North America	Philadelphia	1,442,591 33	947,857 39	600,000 00	526,528 63
Insurance Company of the State of Pennsylvania	Philadelphia	97,467 48	94,875 99	19,870 00	35,837 67
Mechanics' Fire	Brooklyn	142,302 73		25,000 00	45,817 96
Merchants'	Newark	390,058 88		44,000 00	116,364 09
National Fire	New York	132,903 56		18,000 00	41,234 19
National Fire	Hartford	236,870 28		100,000 00	69,256 87
New Hampshire Fire	Manchester, New Hampshire	278,617 46		40,000 00	88,863 20
New Orleans Insurance Association	New Orleans	267,728 33	41,120 22	29,401 50	83,958 58

New York Bowery Fire	New York	293,072 56		36,000 00	97,115 66
Niagara	New York	858,042 19		49,812 00	229,170 92
North American	Boston	50,697 26		20,205 00	14,568 63
Northwestern National	Milwaukee	240,110 24	12,675 18	60,000 00	82,068 64
Oregon Fire and Marine	Portland, Oregon	17,247 09			5,885 66
Orient	Hartford	316,597 25			88,741 06
Pacific Fire	New York	156,723 51		28,000 00	53,466 54
Pennsylvania	Pittsburgh	101,479 21		15,820 00	31,108 59
Pennsylvania Fire	Philadelphia	564,166 75		40,000 00	187,077 52
People's	Pittsburgh	104,823 19		14,000 00	27,920 48
Phenix of Brooklyn	New York	1,690,816 92	648,958 45	100,000 00	792,794 98
Phœnix	Hartford	1,290,204 81		280,000 00	331,998 91
Prescott	Boston	136,034 24		6,000 00	34,589 84
Providence-Washington	Providence, Rhode Island	400,686 54	257,426 50	16,472 35	117,282 66
St. Paul	St. Paul, Minnesota	321,620 67	35,082 15	50,000 00	85,701 01
Security	New Haven	123,144 49	47,809 66	6,000 00	47,904 35
Springfield Fire	Springfield, Massachusetts	1,014,086 51		100,000 00	271,730 76
Teutonia	New Orleans	75,198 54	25,753 28	12,500 00	
Traders'	Chicago	317,302 08	172 83	50,000 00	90,785 68
Union	Philadelphia	229,005 78	392,367 34	23,750 06	129,255 45
United States Fire	New York	53,698 80	1,837 79	24,972 50	17,204 23
Washington Fire and Marine	Boston	394,930 77	137,466 18	30,000 00	223,758 85
Williamsburg City Fire	Brooklyn	336,831 47		50,160 00	155,551 27
Totals		$26,422,072 73	$3,139,096 42	$4,512,269 66	$8,520,896 46

TABLE No. 22—Continued.

NAME.	Location.	Office Salaries.	Taxes.	All other Expenditures.	Total Expenditures.
Ætna	Hartford	$155,761 95	$50,278 04	$125,864 84	$2,887,570 62
Agricultural	Watertown, New York	90,273 05	13,223 23	65,285 03	738,778 11
Allemannia	Pittsburgh	10,902 96	5,011 77	11,349 73	201,537 09
Amazon	Cincinnati	17,285 02	4,528 61	13,936 70	191,522 60
American	Newark	34,320 08	13,078 08	28,753 18	340,705 43
American Central	St. Louis	42,489 43	9,488 81	52,631 91	563,597 28
American Fire	Philadelphia	125,241 11	27,170 86	6,200 37	952,638 94
Boatman's Fire and Marine	Pittsburgh	7,974 53	4,040 16	7,947 30	176,601 56
Citizens'	St. Louis	7,000 00	5,352 75	4,092 69	72,348 20
Citizens'	New York	72,946 33	16,522 65	99,310 55	703,523 40
Connecticut	Hartford	57,042 17	20,035 40	61,969 46	862,468 25
Continental	New York	291,073 96	77,963 18	198,758 04	2,906,576 51
Eliot	Boston	8,734 26	5,293 19	7,032 49	154,492 77
Farragut Fire	New York	23,660 00	3,460 16	17,103 60	181,351 22
Fire Association of Philadelphia	Philadelphia	82,125 60	60,173 43	34,715 43	1,716,225 29
Firemen's	Baltimore	8,965 04	6,214 94	8,490 39	109,766 14
German	Freeport, Illinois	72,752 81	14,222 24	20,225 35	896,314 65
German-American	New York	142,617 77	48,761 21	157,886 26	1,776,700 39
German Fire	Pittsburgh	19,202 19	6,545 73		244,201 64
Germania	New York	96,629 24	33,707 32	239,712 56	1,610,807 77
Germania	New Orleans	11,118 60	5,564 03	2,183 50	113,286 26
Girard	Philadelphia	35,658 66	22,928 69	30,235 17	396,315 75
Glen's Falls	Glen's Falls, New York	35,143 50	10,678 28	40,428 45	509,892 96
Hanover	New York	58,577 86	35,057 66	292,275 20	1,573,115 11
Hartford	Hartford	169,274 64	47,496 48	171,845 92	2,507,832 51
Home	New York	358,826 55	65,687 42	271,933 41	3,711,224 39
Howard	New York	31,857 43	13,327 29	51,583 90	477,978 04
Insurance Company of North America	Philadelphia	123,551 78	114,284 99	231,732 32	3,986,546 44
Insurance Company of the State of Pennsylvania	Philadelphia	14,000 00	6,094 28	26,426 92	294,572 34
Mechanics' Fire	Brooklyn	26,891 13	5,919 36	23,301 69	269,262 87
Merchants'	Newark	29,059 50	21,868 90	51,817 29	653,178 66
National Fire	New York	20,579 17	2,949 32	15,494 81	231,161 05
National Fire	Hartford	33,261 14	12,924 45	28,876 35	481,189 09
New Hampshire Fire	Manchester, New Hampshire	15,678 03	24,025 03	28,886 67	476,070 39
New Orleans Insurance Association	New Orleans	27,431 66	4,063 23	15,529 36	469,232 88
New York Bowery Fire	New York	35,800 00	10,243 59	12,553 01	484,784 82
Niagara	New York	95,918 00	29,301 00	111,236 79	1,373,510 90
North American	Boston	14,698 15	5,131 06	12,106 41	117,406 51
Northwestern National	Milwaukee	42,780 81	12,314 20	43,238 95	193,188 02

Oregon Fire and Marine	Portland, Oregon	3,740 00	2,212 88	3,629 29	32,714 92
Orient	Hartford	39,352 39	11,925 22	48,096 70	504,712 62
Pacific Fire	New York	23,032 01	8,272 40	21,753 79	291,248 25
Pennsylvania	Pittsburgh	7,173 01	5,995 86	14,194 55	175,771 22
Pennsylvania Fire	Philadelphia	26,903 51	23,570 48	52,461 24	894,179 50
People's	Pittsburgh	6,940 00	3,088 98	9,067 83	165,840 48
Phenix of Brooklyn	New York	255,026 17	58,148 80	352,335 78	3,898,081 10
Phœnix	Hartford	95,345 03	63,654 93	181,759 46	2,242,963 14
Prescott	Boston	11,566 00	3,079 14	12,468 68	203,737 90
Providence-Washington	Providence, Rhode Island	30,823 17	18,970 74	63,477 82	905,139 78
St. Paul	St. Paul, Minnesota	33,000 05	9,084 52	31,490 84	565,979 24
Security	New Haven	21,396 64	2,618 63		248,873 77
Springfield Fire	Springfield, Massachusetts	68,399 52	34,913 18	170,278 93	1,659,408 90
Teutonia	New Orleans	22,206 99	9,013 76	334 55	145,007 12
Traders'	Chicago	36,080 25	18,436 11	15,908 56	528,685 51
Union	Philadelphia	38,224 00	21,420 66	47,498 37	881,521 66
United States Fire	New York	11,315 13	4,654 67	14,421 92	128,105 04
Washington Fire and Marine	Boston	23,500 00	8,529 93	22,889 09	841,074 82
Williamsburg City Fire	Brooklyn	56,403 40	18,930 16	70,544 05	688,420 35
Totals		$3,357,561 38	$1,201,482 07	$3,755,563 45	$50,908,942 17

TABLE No. 23.

Showing amount of Risks written, Premiums received, and amount of Risks in force on the thirty-first day of December, 1884, with Premiums thereon, of Fire and Fire and Marine Insurance Companies doing business in California—Companies of other States.

NAME.	Location.	RISKS WRITTEN DURING THE YEAR.				
		Fire.	Premiums.	Marine.	Premiums.	Total Premiums.
Ætna	Hartford	$231,674,285 00	$2,626,379 93	$41,376,866 00	$196,797 87	$2,823,177 80
Agricultural	Watertown, N. Y.	92,808,752 00	843,413 47			843,413 47
Allemannia	Pittsburgh	16,093,750 00	209,428 36			209,428 36
Amazon	Cincinnati	12,811,192 00	180,000 70			180,000 70
American	Newark	50,115,602 00	403,027 30			403,027 30
American Central	St. Louis	44,738,333 00	608,079 12			608,079 12
American Fire	Philadelphia	82,117,281 00	972,802 50			972,802 50
Boatman's Fire and Marine	Pittsburgh	12,414,002 00	173,441 84	751,139 00	13,130 10	186,571 94
Citizens'	St. Louis	6,611,897 00	73,335 28	1,167,034 00	6,512 90	79,848 18
Citizens'	New York	87,957,455 00	820,792 30			820,792 30
Connecticut	Hartford	84,230,442 00	1,004,167 03			1,004,167 03
Continental	New York	383,427,946 00	2,816,860 89	174,354,899 00	599,453 25	3,416,314 14
Eliot	Boston	11,454,229 00	140,135 38			140,135 38
Farragut Fire	New York	28,437,071 00	179,527 68			179,527 68
Fire Association of Philadelphia	Philadelphia	135,261,652 00	1,692,970 43			1,692,970 43
Firemen's	Baltimore	18,084,016 00	118,041 72			118,041 72
German	Freeport, Ill.	60,571,983 00	1,188,068 80			1,188,068 80
German-American	New York	243,752,283 00	2,311,413 90			2,311,413 90
German Fire	Pittsburgh	22,312,985 00	276,709 47			276,709 47
Germania	New York	172,776,647 00	1,763,184 54			1,763,184 54
Germania	New Orleans	18,469,340 00	144,977 00	1,093,201 00	11,566 33	156,543 33
Girard	Philadelphia	34,680,042 00	357,920 56			357,920 56
Glen's Falls	Glen's Falls, N. Y.	56,786,321 00	590,072 11			590,072 11
Hanover	New York	144,248,519 00	1,580,661 57			1,580,661 57
Hartford	Hartford	215,184,607 00	2,683,018 11			2,683,018 11
Home	New York	349,999,679 00	3,811,427 76			3,811,427 76
Howard	New York	49,867,628 00	477,880 54			477,880 54
Insurance Company of North America	Philadelphia	193,022,843 00	2,499,256 31	215,042,781 00	1,623,957 52	4,123,213 83
Ins. Co. of the State of Pennsylvania	Philadelphia	16,604,446 00	176,036 70	11,324,235 00	89,921 02	265,957 72
Mechanics' Fire	Brooklyn	33,246,445 00	285,313 85			285,313 85
Merchants'	Newark	61,176,233 00	659,691 75			659,691 75

National Fire	New York	29,906,836 00	231,790 11			231,790 11
National Fire	Hartford	40,781,908 00	490,031 85			490,031 85
New Hampshire Fire	Manchester, N. H.	49,834,340 00	560,658 90			560,658 90
New Orleans Insurance Association	New Orleans	32,846,100 00	542,214 35	9,916,883 00	71,474 62	613,688 97
New York Bowery Fire	New York	51,457,476 00	452,041 45			452,041 45
Niagara	New York	161,138,553 00	1,652,627 25			1,652,627 25
North American	Boston	13,268,477 00	124,391 69			124,391 69
Northwestern National	Milwaukee	47,561,795 00	520,580 87	3,381,243 00	27,851 25	548,432 12
Oregon Fire and Marine	Portland, Oregon					
Orient	Hartford	47,276,498 00	619,654 02			619,654 02
Pacific Fire	New York	37,056,772 00	312,907 01			312,907 01
Pennsylvania	Pittsburgh	13,543,399 00	176,435 93			176,435 93
Pennsylvania Fire	Philadelphia	74,212,281 00	1,001,705 57			1,001,705 57
People's	Pittsburgh	11,146,343 00	156,819 04			156,819 04
Phenix	New York	378,692,883 00	4,039,272 59	154,824,484 00	1,093,216 42	5,132,489 01
Phœnix	Hartford	179,295,193 00	2,191,395 66			2,191,395 66
Prescott	Boston	17,666,497 00	210,020 44			210,020 44
Providence-Washington	Providence, R. I.	58,208,482 00	581,367 38	48,512,693 00	454,431 51	1,035,798 89
St. Paul	St. Paul, Minn.	48,797,783 00	617,097 90	10,040,110 00	59,553 47	676,651 37
Security	New Haven	19,546,295 00	234,247 40	8,966,260 00	76,493 98	310,741 38
Springfield Fire and Marine	Springfield, Mass.	136,691,800 00	1,913,685 51			1,913,685 51
Teutonia	New Orleans	11,415,317 00	184,183 43	8,477,000 00	50,493 99	234,677 42
Traders'	Chicago	50,820,796 00	668,330 60	817,582 00	2,431 11	670,761 71
Union	Philadelphia	37,278,050 00	407,438 72	45,442,949 00	522,981 93	930,420 65
United States Fire	New York	17,704,113 00	114,085 78	313,230 00	9,343 96	123,429 74
Washington Fire and Marine	Boston	63,762,015 00	778,161 07	10,106,357 00	212,360 08	990,521 15
Williamsburg City Fire	Brooklyn	141,627,924 00	810,135 51			810,135 51
Totals		$4,742,475,832 00	$51,259,316 93	$745,908,946 00	$5,121,971 31	$56,381,288 24

TABLE NO. 23—Continued.

NAME.	Location	RISKS IN FORCE DECEMBER 31, 1884.				
		Fire.	Premiums.	Marine.	Premiums.	Total Premiums.
Ætna	Hartford	$289,246,692 00	$3,341,039 36	$1,826,016 00	$75,185 87	$3,416,225 23
Agricultural	Watertown, N. Y.	228,978,444 00	2,051,078 64			2,051,078 64
Allemannia	Pittsburgh	13,501,190 00	178,899 04			178,899 04
Amazon	Cincinnati	13,860,998 00	185,874 48			185,874 48
American	Newark	48,739,586 00	428,595 57			428,595 57
American Central	St. Louis	45,063,929 00	641,440 05			641,440 05
American Fire	Philadelphia	96,810,046 00	1,346,713 85			1,346,713 85
Boatman's Fire and Marine	Pittsburgh	9,826,057 00	143,071 55	36,691 00	2,477 55	145,549 10
Citizens'	St. Louis	4,974,811 00	71,010 00			71,010 00
Citizens'	New York	83,241,497 00	783,008 20			783,008 20
Connecticut	Hartford	86,714,893 00	1,028,237 39			1,028,237 39
Continental	New York	404,458,595 00	3,581,994 30	3,540,421 00	50,789 49	3,632,783 79
Eliot	Boston	11,083,732 00	148,946 03			148,946 03
Farragut Fire	New York	28,318,195 00	184,900 85			184,900 85
Fire Association of Philadelphia	Philadelphia	241,642,250 00	3,827,157 00			3,827,157 00
Firemen's	Baltimore	22,304,375 00	110,848 16			110,848 16
German	Freeport, Ill.	101,097,090 00	1,975,153 69			1,975,153 69
German-American	New York	305,577,437 00	2,523,421 45			2,523,421 45
German Fire	Pittsburgh	22,810,617 00	291,274 57			291,274 57
Germania	New York	174,228,900 00	1,816,356 43			1,816,356 43
Germania	New Orleans	8,643,620 00	74,052 64			74,052 64
Girard	Philadelphia	47,689,447 00	586,215 97			586,215 97
Glen's Falls	Glen's Falls, N. Y.	84,341,372 00	863,159 09			863,159 09
Hanover	New York	157,750,592 00	1,768,641 99			1,768,641 99
Hartford	Hartford	275,378,171 00	3,356,253 44			3,356,253 44
Home	New York	488,412,737 00	5,341,588 00			5,341,588 00
Howard	New York	22,889,750 00	244,637 89			244,637 89
Insurance Company of North America	Philadelphia	293,308,706 00	3,957,652 82	15,706,590 00	230,977 42	4,188,630 24
Ins. Co. of the State of Pennsylvania	Philadelphia	16,819,239 00	156,911 32	1,126,304 00	23,658 50	180,569 82
Mechanics' Fire	Brooklyn	30,348,825 00	252,752 31			252,752 31
Merchants'	Newark	65,994,389 00	712,759 81			712,759 81
National Fire	New York	27,141,508 00	201,688 91			201,688 91
National Fire	Hartford	47,426,668 00	572,037 90			572,037 90
New Hampshire Fire	Manchester, N. H.	41,024,391 00	483,845 45			483,845 45
New Orleans Insurance Association	New Orleans	20,982,225 00	320,625 64	227,615 00	4,740 22	325,365 86
New York Bowery Fire	New York	56,424,380 00	417,315 01			417,315 01

Niagara	New York	157,820,280 00	1,594,894 07			1,594,894 07
North American	Boston	14,422,849 00	141,902 27			141,902 27
Northwestern National	Milwaukee	52,468,125 00	646,343 03	75,000 00	500 00	646,843 03
Oregon Fire and Marine	Portland, Oregon	2,159,237 00	45,945 71			45,945 71
Orient	Hartford	49,016,242 00	626,721 97			626,721 97
Pacific Fire	New York	38,883,373 00	330,316 72			330,316 72
Pennsylvania	Pittsburgh	11,877,735 00	160,805 45			160,805 45
Pennsylvania Fire	Philadelphia	99,728,469 00	1,500,535 09			1,500,535 09
People's	Pittsburgh	9,205,794 00	134,959 57			134,959 57
Phenix	New York	356,094,754 00	4,293,915 19	13,728,967 00	102,420 69	4,396,335 88
Phœnix	Hartford	208,150,227 00	2,427,930 29			2,427,930 29
Prescott	Boston	19,182,210 00	234,712 83			234,712 83
Providence-Washington	Providence, R. I.	42,923,319 00	506,929 59	1,635,440 00	72,706 18	579,635 77
St. Paul	St. Paul, Minn.	44,350,495 00	646,373 97	262,100 00	18,660 00	665,033 97
Security	New Haven	18,002,295 00	215,939 71	705,949 00	19,966 67	235,906 38
Springfield Fire and Marine	Springfield, Mass.	151,350,979 00	2,057,811 96			2,057,811 96
Teutonia	New Orleans	4,508,506 00	65,520 57	288,187 00	3,243 50	68,764 07
Traders'	Chicago	35,703,362 00	498,127 16			498,127 16
Union	Philadelphia	34,071,625 00	421,191 60	843,734 00	53,361 95	474,553 55
United States Fire	New York	15,271,120 00	107,749 50	232,000 00	7,047 07	114,796 57
Washington Fire and Marine	Boston	50,575,167 00	641,955 32	1,667,974 00	65,452 19	707,407 51
Williamsburg City Fire	Brooklyn	99,986,868 00	853,687 19			853,687 19
Totals		$5,432,808,385 00	$62,123,427 56	$41,902,988 00	$731,187 30	$62,854,614 86

TABLE No. 24.

Summary of Assets, Liabilities, Income, Expenditures, etc., and Net Surplus of Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—Companies of Foreign Countries.

NAME.	Location.	Cash Capital paid up.	Total Assets.	Liabilities, Capital not included.	Total Income.
British America	Toronto	$500,000 00	$1,029,676 05	$574,120 98	$806,249 65
City of London Fire	London	1,000,000 00	1,632,280 50	831,417 88	1,613,415 31
Commercial Union	London	1,250,000 00	11,701,193 60	8,087,599 42	5,903,400 77
Fire Insurance Association	London	500,000 00	1,482,351 17	831,806 06	1,502,661 58
Guardian*	London				
Hamburg Bremen	Hamburg	300,000 00	1,297,571 47	757,784 79	550,347 32
Hamburg Magdeburg	Hamburg	625,000 00	695,562 13	48,359 08	96,600 50
Helvetia Swiss Fire	St. Gall, Switzerland	400,000 00	1,085,493 07	426,094 11	542,969 46
Imperial	London	3,500,000 00	9,346,577 00	2,443,766 00	4,272,319 00
Lancashire	Manchester	1,364,840 00	6,863,154 75	5,223,642 47	3,072,208 22
Lion Fire	London	560,069 00	1,142,560 00	561,298 00	904,313 00
Liverpool and London and Globe	Liverpool	1,228,200 00	38,263,482 85	28,863,449 49	7,107,601 27
London	London	2,241,375 00	16,742,553 30	10,829,407 58	4,301,265 46
London and Lancashire	Liverpool	926,000 00	2,825,922 54	1,357,478 20	2,549,399 77
London and Provincial Fire*	London				
Manchester Fire	Manchester	500,000 00	1,321,440 80	805,796 33	1,438,083 21
National	Dublin	500,000 00	3,058,127 00	2,125,454 00	834,860 00
National Fire and Marine	Dunedin, New Zealand	490,156 25	1,564,975 75	541,109 04	1,043,434 48
New Zealand	Auckland	1,000,000 00	2,660,725 00	749,760 00	1,207,341 00
North British and Mercantile	London	3,125,000 00	13,145,509 92	3,140,813 65	6,005,343 00
North German Fire	Hamburg	375,000 00	953,312 72	446,916 41	538,502 54
Northern	London	1,500,000 00	15,740,270 13	11,511,775 53	4,490,526 92
Norwich Union	Norwich, England	660,000 00	3,593,505 53	1,281,361 63	3,063,021 87
Phœnix	London	359,593 75	5,865,415 97	2,625,073 95	4,357,913 52
Prussian National	Stettin	562,500 00	1,455,019 98	426,482 63	894,538 31
Queen	Liverpool	873,169 75	5,563,776 55	4,237,424 45	2,857,046 49
Royal	Liverpool	1,447,725 00	29,082,587 39	19,214,528 29	5,360,000 00
Scottish Union and National	Edinburgh	1,412,855 00	15,915,792 79	13,725,809 75	3,081,694 29
South British Fire and Marine	Auckland	638,420 00	1,637,411 00	906,930 00	1,700,693 00
Svea	Gothenburg, Sweden	266,666 67	2,876,817 95	2,328,643 38	1,593,575 15
Transatlantic Fire	Hamburg	300,000 00	1,037,305 64	544,337 40	505,850 99
Union Fire and Marine	Christchurch, New Zealand	500,000 00	916,786 98	310,661 28	681,923 43
United Fire Reinsurance*	Manchester				
Western	Toronto	400,000 00	1,191,574 14	854,632 70	1,471,724 39
Totals		$29,306,570 42	$201,688,733 67	$126,613,734 48	$74,348,823 90

TABLE No. 24—Continued.

NAME.	Location.	Total Expenditures.	Losses Incurred During the Year.	Net Surplus.
British America	Toronto	$852,495 12	$526,882 51	
City of London Fire	London	1,588,758 43	874,307 96	
Commercial Union	London	5,676,840 23	3,625,140 00	$2,363,594 18
Fire Insurance Association	London	1,622,191 32	1,243,266 08	150,545 11
Guardian*	London			
Hamburg Bremen	Hamburg	585,284 64	351,156 30	239,786 68
Hamburg Magdeburg	Hamburg	100,207 89	68,875 00	22,203 05
Helvetia Swiss Fire	St. Gall, Switzerland	431,195 95	266,998 33	259,398 95
Imperial	London	4,220,946 00	2,513,790 00	3,402,811 00
Lancashire	Manchester	2,984,343 98	1,472,541 00	274,672 28
Lion Fire	London	845,215 00	560,191 00	21,193 00
Liverpool and London and Globe	Liverpool	6,820,552 29	3,952,402 46	8,171,833 36
London	London	3,946,038 79	1,987,316 49	3,671,770 72
London and Lancashire	Liverpool	2,489,380 67	1,621,358 36	542,444 34
London and Provincial Fire*	London			
Manchester Fire	Manchester	1,336,351 30	979,440 00	15,644 47
National	Dublin	793,628 00	478,032 00	432,673 00
National Fire and Marine	Dunedin, New Zealand	1,108,354 50	854,048 00	533,710 46
New Zealand	Auckland	1,084,122 00	662,592 00	910,965 00
North British and Mercantile	London	5,994,087 58	3,521,785 04	6,879,696 27
North German Fire	Hamburg	476,135 95	300,801 72	131,396 31
Northern	London	3,973,768 58	1,897,860 00	2,728,494 60
Norwich Union	Norwich, England	2,982,628 14	1,886,943 37	1,652,143 89
Phœnix	London	4,223,396 77	2,726,851 89	2,880,748 27
Prussian National	Stettin	543,924 39	384,568 00	466,037 35
Queen	Liverpool	2,800,266 97	1,876,950 00	453,182 35
Royal	Liverpool	5,450,873 75	3,382,317 87	8,420,334 10
Scottish Union and National	Edinburgh	2,589,954 24	638,830 00	903,958 04
South British Fire and Marine	Auckland	1,513,101 00	1,161,030 00	92,061 00
Svea	Gothenburg, Sweden	1,529,423 60	973,541 19	281,507 90
Transatlantic Fire	Hamburg	435,730 93	321,019 58	192,958 24
Union Fire and Marine	Christchurch, New Zealand	601,030 92	461,007 34	106,125 70
United Fire Reinsurance*	Manchester			
Western	Toronto	1,565,112 41	1,112,127 39	
Totals		$71,165,341 34	$42,684,060 88	$46,201,899 63

* No report.

TABLE NO. 25.

Showing the Assets of the Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—Companies of Foreign Countries.

NAME.	Location.	Real Estate.	Loans on Bonds and Mortgages.	Stocks and Bonds Owned by the Company.	Collateral Loans.	Cash in Office and Banks.
British America	Toronto	$90,000 00	$1,800 00	$803,256 90		$74,750 57
City of London Fire	London		38,150 00	1,197,251 25	$50,000 00	63,696 70
Commercial Union	London	1,114,865 98	405,858 56	3,080,438 75	13,333 35	979,864 29
Fire Insurance Association	London			1,060,321 83		-94,831 29
Guardian*	London					
Hamburg Bremen	Hamburg	14,975 00	59,930 36	1,010,507 62		127,116 78
Hamburg Magdeburg	Hamburg	35,050 75	269,925 00	179,543 36	31,625 00	141,006 49
Helvetia Swiss Fire	St. Gall, Switzerland	60,000 00	486,929 69	123,814 45		291,803 50
Imperial	London	1,439,929 00	180,750 00	6,853,979 00		69,399 00
Lancashire	Manchester	287,918 48	2,675,396 10	2,547,490 00	116,555 34	288,450 20
Lion Fire	London		146,495 00	564,662 00	86,450 00	93,999 00
Liverpool and London and Globe	Liverpool	4,057,277 50	8,819,657 44	17,831,617 91		2,729,993 88
London	London	25,111 56	10,696,643 86	4,267,424 22	187,500 00	323,971 62
London and Lancashire	Liverpool	343,604 66	44,500 00	1,851,802 77	29,000 00	180,479 75
London and Provincial Fire*	London					
Manchester Fire	Manchester	165,000 00	286,350 00	429,257 00	18,125 00	15,642 60
National	Dublin	207,516 00	1,014,672 00	1,396,558 00	246,074 00	14,978 00
National Fire and Marine	Dunedin, New Zealand	132,044 88	954,870 00	60,827 10		11,541 25
New Zealand	Auckland	679,273 00	673,468 00	786,482 00		231,229 00
North British and Mercantile	London	1,635,969 33	930,179 15	7,749,499 08	475,000 00	728,102 45
North German Fire	Hamburg	65,999 05	19,000 00	481,702 99		150,087 69
Northern	London	914,322 85	1,510,880 75	7,967,138 10	3,431,702 82	467,664 75
Norwich Union	Norwich, England	177,000 00	190,000 00	2,087,285 87		733,119 27
Phœnix	London	721,366 41	1,423,170 29	2,976,267 58		136,111 32
Prussian National	Stettin	50,000 00	527,662 50	539,014 82	25,250 00	287,789 78
Queen	Liverpool	1,152,426 75	902,663 37	2,563,410 31	11,030 52	104,722 31
Royal	Liverpool	2,682,768 70	6,949,850 41	11,492,231 36	5,416,546 04	755,995 56
Scottish Union and National	Edinburgh	782,038 64	9,441,607 04	2,827,534 24	2,045,618 02	245,068 94
South British Fire and Marine	Auckland	436,750 00	99,677 00	341,180 00	54,400 00	159,580 00
Svea	Gothenburg, Sweden	291,911 35	1,165,651 32	950,170 13	225,344 80	65,269 25
Transatlantic Fire	Hamburg	33,625 00		577,563 97		244,556 33
Union Fire and Marine	Christchurch, N. Z.	26,000 00	533,175 00	62,910 51		128,956 20
United Fire Reinsurance*	Manchester, England					
Western	Toronto	70,000 00	17,850 00	639,354 00		232,555 16
Totals		$17,692,774 89	$50,466,763 14	$85,300,497 12	$12,463,554 89	$10,172,332 93

TABLE No. 25—Continued.

NAME.	Location.	Interest Due and Accrued.	Premiums in course of Collection.	Bills Receivable, not matured, taken for Fire and Marine Risks.	All other Assets.	Total Assets.
British America	Toronto	$1,083 75	$39,799 76	$17,921 32	$1,063 75	$1,029,676 05
City of London Fire	London	10,807 41	262,233 47	10,141 67		1,632,280 50
Commercial Union	London	6,072 61	962,551 21	78,659 27	5,059,549 28	11,701,193 60
Fire Insurance Association	London	8,471 20	318,726 85			1,482,351 17
Guardian*	London					
Hamburg Bremen	Hamburg		79,472 04	2,770 25	2,799 42	1,297,571 47
Hamburg Magdeburg	Hamburg	3,069 94	34,902 01		439 58	695,562 13
Helvetia Swiss Fire	St. Gall, Switzerland	10,509 32	110,784 13		1,651 98	1,085,493 07
Imperial	London		680,184 00		122,336 00	9,346,577 00
Lancashire	Manchester	55,683 72	871,031 22	18,854 69	1,775 00	6,863,154 75
Lion Fire	London	10,704 00	185,959 00	4,744 00	49,547 00	1,142,560 00
Liverpool and London and Globe	Liverpool	294,736 79	490,119 48		4,040,079 85	38,263,482 85
London	London	34,863 00	395,298 50	68,080 91	743,659 63	16,742,553 30
London and Lancashire	Liverpool	14,988 60	299,941 58	55,253 34	6,351 84	2,825,922 54
London and Provincial Fire*	London					
Manchester Fire	Manchester	11,455 27	395,535 93		75 00	1,321,440 80
National	Dublin	38,471 00	139,858 00			3,058,127 00
National Fire and Marine	Dunedin, New Zealand	25,159 00	380,533 52			1,564,975 75
New Zealand	Auckland	14,464 00	11,377 00	12,983 00	251,449 00	2,660,725 00
North British and Mercantile	London	1,118 00	104,858 30	101,740 33	1,419,043 28	13,145,509 92
North German Fire	Hamburg		236,522 99			953,312 72
Northern	London	169,721 46	62,677 35	84,351 17	1,131,810 88	15,740,270 13
Norwich Union	Norwich, England	25,997 14	380,103 25			3,593,505 53
Phœnix	London	19,020 27	529,974 30	50,868 39	8,637 41	5,865,415 97
Prussian National	Stettin	25,302 88				1,455,019 98
Queen	Liverpool	53,287 27	62,750 00		713,486 02	5,563,776 55
Royal	Liverpool	346,940 90	532,089 08		906,165 34	29,082,587 39
Scottish Union and National	Edinburgh	87,639 08	445,069 10		41,217 73	15,915,792 79
South British Fire and Marine	Auckland	19,266 00	466,292 00	18,593 00	41,673 00	1,637,411 00
Svea	Gothenburg, Sweden	9,683 06	14,529 17	131,980 65	22,248 22	2,876,817 95
Transatlantic Fire	Hamburg		162,022 23		19,538 11	1,037,305 64
Union Fire and Marine	Christchurch, N. Z.	14,756 10	98,843 96	18,602 00	33,543 21	916,786 98
United Fire Reinsurance*	Manchester, England					
Western	Toronto	3,238 73	130,790 36	61,708 75	36,077 14	1,191,574 14
Totals		$1,316,510 50	$8,884,829 79	$737,252 74	$14,654,217 67	$201,688,733 67

* No report.

TABLE No. 26.

Showing the various items composing the Liabilities, except Capital Stock, of Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—Companies of Foreign Countries.

NAME.	Location.	Losses Adjusted.	Losses Unadjusted.	Losses Resisted.	Cash Dividends Remaining Unpaid.	Fire Reinsurance.
British America	Toronto	$25,590 60	$48,915 02	$12,096 39	$22,725 33	$430,997 47
City of London Fire	London		273,985 00	7,500 00	149 00	515,736 72
Commercial Union	London		808,810 00	13,835 00	552 50	2,216,472 03
Fire Insurance Association	London	295,141 08			168 50	507,595 96
Guardian*	London					
Hamburg Bremen	Hamburg	49,805 00			135 00	608,423 65
Hamburg Magdeburg	Hamburg		11,759 50		775 00	35,599 58
Helvetia Swiss Fire	St. Gall, Switzerland	18,157 99				239,458 26
Imperial	London	879,225 00			11,009 00	1,320,265 00
Lancashire	Manchester	440,754 41			81,402 25	1,329,470 73
Lion Fire	London	136,030 00				377,663 00
Liverpool and London and Globe	Liverpool		720,650 00		8,256 91	4,282,074 92
London	London	160,511 72			44,826 25	875,016 39
London and Lancashire	Liverpool	8,652 60	235,684 30	33,268 00	191 62	1,035,836 49
London and Provincial Fire *	London					
Manchester Fire	Manchester		259,375 00		346 25	465,193 00
National	Dublin	35,500 00			10,913 00	117,962 00
National Fire and Marine	Dunedin, New Zealand		147,620 00		5,045 20	288,710 00
New Zealand	Auckland		128,895 00			277,092 00
North British and Mercantile	London	649,518 77			12,957 58	1,856,781 10
North German Fire	Hamburg	48,030 50				258,753 02
Northern	London	382,739 84			9,359 65	1,432,945 29
Norwich Union	Norwich, England	283,659 37			2,445 50	959,555 35
Phœnix	London	540,650 00			5,632 50	2,078,791 45
Prussian National	Stettin		25,675 00	10,075 00	162 00	343,677 75
Queen	Liverpool	191,000 00			221 89	1,500,000 00
Royal	Liverpool	315,997 80			8,844 98	3,115,760 00
Scottish Union and National	Edinburgh	80,116 79			6,540 91	371,371 17
South British Fire and Marine	Auckland	95,800 00			260 00	400,868 00
Svea	Gothenburg, Sweden		85,333 33		40,089 33	695,267 72
Transatlantic Fire	Hamburg	71,540 25			87 75	255,561 65
Union Fire and Marine	Christchurch, N. Z.	68,400 00			3,795 12	102,383 62
United Fire Reinsurance*	Manchester					
Western	Toronto	117,714 32		5,500 00	624 93	678,586 81
Totals		$4,927,536 04	$2,746,702 15	$82,274 39	$277,517 95	$29,273,870 13

TABLE No. 26—Continued.

NAME.	Location.	Marine Reinsurance.	Liability under Life Department.	All other Claims.	Total Liabilities.	Net Surplus.
British America	Toronto	$29,499 81		$4,296 36	$574,120 98	
City of London Fire	London			34,047 16	831,417 88	
Commercial Union	London	439,325 00	$4,492,885 62	115,719 27	8,087,599 42	$2,363,594 18
Fire Insurance Association	London			28,900 52	831,806 06	150,545 11
Guardian*	London					
Hamburg Bremen	Hamburg			99,421 14	757,784 79	239,786 68
Hamburg Magdeburg	Hamburg			225 00	48,359 08	22,203 05
Helvetia Swiss Fire	St. Gall, Switzerland			138,477 86	426,094 11	259,398 95
Imperial	London			233,267 00	2,443,766 00	3,402,811 00
Lancashire	Manchester		3,372,015 08		5,223,642 47	274,672 28
Lion Fire	London			47,605 00	561,298 00	21,193 00
Liverpool and London and Globe	Liverpool		23,248,757 38	603,710 28	28,863,449 49	8,171,833 36
London	London	437,755 35	9,225,946 62	85,351 25	10,829,407 58	3,671,770 72
London and Lancashire	Liverpool			43,845 19	1,357,478 20	542,444 31
London and Provincial Fire*	London					
Manchester Fire	Manchester			80,882 08	805,796 33	15,644 47
National	Dublin		1,510,640 00	150,439 00	2,125,454 00	432,673 00
National Fire and Marine	Dunedin, New Zealand	89,399 00		10,334 84	541,109 01	533,710 46
New Zealand	Auckland	116,165 00		227,608 00	749,760 00	910,965 00
North British and Mercantile	London			621,556 20	3,140,813 65	6,879,696 27
North German Fire	Hamburg			140,132 89	446,916 41	131,396 31
Northern	London		9,508,514 67	178,216 08	11,511,775 53	2,728,494 60
Norwich Union	Norwich, England			35,701 41	1,281,361 63	1,652,143 89
Phœnix	London				2,625,073 95	2,880,748 27
Prussian National	Stettin	6,936 16		39,956 72	426,482 63	466,037 35
Queen	Liverpool		2,461,100 74	82,101 82	4,237,424 45	453,182 35
Royal	Liverpool		15,611,500 00	162,425 51	19,214,528 29	8,420,334 10
Scottish Union and National	Edinburgh		13,216,000 88	51,780 00	13,725,809 75	903,958 04
South British Fire and Marine	Auckland	324,410 00		85,592 00	905,930 00	92,061 00
Svea	Gothenburg, Sweden		1,422,548 59	85,404 41	2,328,643 38	281,507 90
Transatlantic Fire	Hamburg			217,147 75	544,337 40	192,968 24
Union Fire and Marine	Christchurch, N. Z.	70,250 83		65,831 71	310,661 28	106,125 70
United Fire Reinsurance*	Manchester					
Western	Toronto	38,826 57		13,380 07	854,632 70	
Totals		$1,552,567 72	$84,069,909 58	$3,683,356 52	$126,613,734 48	$46,201,899 63

* No report.

TABLE NO. 27.

Showing the various items composing the incomes of Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—*Companies of Foreign Countries.*

NAME.	Location.	Fire Premiums.	Marine Premiums.	Life Premiums.	Interest and Dividends from all sources.	From all other sources.	Total Income.
British America	Toronto	$677,473 46	$84,743 19		$36,989 29	$7,043 71	$806,249 65
City of London Fire	London	1,564,762 71			47,246 30	1,406 30	1,613,415 31
Commercial Union	London	3,894,593 31	1,007,906 40	$771,193 50	229,573 81	133 75	5,903,400 77
Fire Insurance Association	London	1,466,822 20			35,839 38		1,502,661 58
Guardian*	London						
Hamburg Bremen	Hamburg	506,923 85			43,423 47		550,347 32
Hamburg Magdeburg	Hamburg	73,925 57			22,473 43	201 50	96,600 50
Helvetia Swiss Fire	St. Gall, Switzerland	509.176 30			33,793 16		542,969 46
Imperial	London	3,960,804 00			306,308 00	5,207 00	4,272,319 00
Lancashire	Manchester	2,860,735 52		101,810 00	109,662 70		3,072,208 22
Lion Fire	London	873,575 00			30,719 00	19 00	904,313 00
Liverpool and London and Globe	Liverpool	6,401,112 04			706,489 23		7,107,601 27
London	London	1,444,906 37	1,319,626 41	749,800 25	644,721 54	142,210 89	4,301,265 46
London and Lancashire	Liverpool	2,456,575 79			73,287 15	19,536 83	2,549,399 77
London and Provincial Fire*	London						
Manchester Fire	Manchester	1,395,580 77			33,999 48	8,502 96	1,438.083 21
National	Dublin	799,835 00			34,775 00	250 00	834,860 00
National Fire and Marine	Dunedin, New Zealand	605,029 58	359,135 25		71,777 38	7,492 27	1,043,434 48
New Zealand	Auckland	523,792 00	564,459 00		119,090 00		1,207,341 00
North British and Mercantile	London	5,570,343 25			434,492 85	506 90	6,005,343 00
North German Fire	Hamburg	517,506 04			20,996 50		538,502 54
Northern	London	2,865,890 57		921,757 35	606,107 73	96,771 27	4,490,526 92
Norwich Union	Norwich, England	2,949,061 13			105,110 74	8,850 00	3,063,021 87
Phœnix	London	4,148,500 61			209,412 91		4,357,913 52
Prussian National	Stettin	803,948 27	37,625 42		52,964 62		894,538 31
Queen	Liverpool	2,740,250 00			116,400 00	396 49	2,857,046 49
Royal	Liverpool	4,930,000 00			430,000 00		5,360,000 00
Scottish Union and National	Edinburgh	1,024,055 71		1,442,501 29	593,008 04	22,129 25	3,081,694 29
South British Fire and Marine	Auckland	925,135 00	714,390 00		49,575 00	11,593 00	1,700,693 00
Svea	Gothenburg, Sweden	1,039,356 10		425,627 32	128,591 73		1.593,575 15
Transatlantic	Hamburg	475,178 95			22.631 41	8,040 63	505,850 99
Union Fire and Marine	Christchurch, N. Z.	265,391 85	348,215 52		46,704 31	21,611 75	681,923 43

United Fire Reinsurance*	Manchester						
Western	Toronto	1,200,876 84	225,907 86		44,939 69		1,471,724 39
Totals		$59,471,117 79	$4,662,009 05	$4,412,689 71	$5,441,103 85	$361,903 50	$74,348,823 90

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* No report.

TABLE NO. 28.

Showing the various items composing the Expenditures of Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884—Companies of Foreign Countries.

NAME.	Location.	Fire Losses.	Marine Losses.	Life Expenses.	Dividends.	Brokerage and Commissions.
British America	Toronto	$508,428 33	$51,307 67		$49,730 00	$113,536 62
City of London Fire	London	1,106,622 96			29,851 00	347,048 02
Commercial Union	London	2,767,105 77	715,787 50	$495,956 15	188,113 75	710,430 50
Fire Insurance Association	London	1,109,962 17				251,628 48
Guardian*	London					
Hamburg Bremen	Hamburg	352,371 30			59,865 00	125,655 40
Hamburg Magdeburg	Hamburg	57,116 07			24,330 00	
Helvetia Swiss Fire	St. Gall, Switzerland	266,998 33				81,744 39
Imperial	London	2,513,790 00			480,000 00	798,769 00
Lancashire	Manchester	1,977,448 94			136,529 00	450,555 60
Lion Fire	London	560,191 00				153,572 00
Liverpool and London and Globe	Liverpool	3,952,402 46			706,215 00	996,266 81
London	London	939,834 18	1,047,482 31	868,960 94	448,275 00	253,304 87
London and Lancashire	Liverpool	1,627,746 00			73,912 76	445,248 34
London and Provincial Fire*	London					
Manchester Fire	Manchester	883,573 84			50,000 00	307,971 90
National	Dublin	504,030 00			69,333 00	160,315 00
National Fire and Marine	Dunedin, New Zealand	493,785 75	360,262 54			113,570 54
New Zealand	Auckland	351,218 00	311,374 00		150,000 00	
North British and Mercantile	London	3,561,360 75			724,440 00	885,061 68
North German Fire	Hamburg	265,678 62			22,500 00	60,652 00
Northern	London	1,904,771 87		784,885 27	307,611 50	395,316 65
Norwich Union	Norwich, England	1,934,640 54			219,590 00	537,081 99
Phœnix	London	2,733,721 89			352,905 00	811,264 39
Prussian National	Stettin	222,852 24	10,316 24		140,625 00	96,864 95
Queen	Liverpool	1,876,950 00			87,316 97	
Royal	Liverpool	3,390,000 00			603,218 75	
Scottish Union and National	Edinburgh	642,325 10		1,518,574 46	141,285 50	133,065 04
South British Fire and Marine	Auckland	593,200 00	547,030 00		63,516 00	149,720 00
Svea	Gothenburg, Sweden	595,875 80		667,948 94	66,666 67	122,789 30
Transatlantic Fire	Hamburg	283,966 29			26,924 25	24,743 89
Union Fire and Marine	Christchurch, New Zealand	186,195 65	206,501 69		47,875 96	
United Fire Reinsurance*	Manchester					
Western	Toronto	958,196 79	153,930 60		48,000 00	226,973 48
Totals		$39,122,360 64	$3,403,992 55	$4,336,325 76	$5,318,630 11	$8,753,150 84

TABLE No. 28—Continued.

NAME.	Location.	Office Salaries.	Taxes.	All other Expenditures.	Total Expenditures.
British America	Toronto	$31,220 79	$20,089 15	$78,182 56	$852,495 12
City of London Fire	London	26,546 37	23,363 98	55,326 10	1,588,758 43
Commercial Union	London	789,292 98		10,153 58	5,676,840 23
Fire Insurance Association	London	111,626 70	29,009 60	119,964 37	1,622,191 32
Guardian*	London				
Hamburg Bremen	Hamburg	25,881 87	21,511 07		585,284 64
Hamburg Magdeburg	Hamburg	14,096 07	4,665 75		100,207 89
Helvetia Swiss Fire	St. Gall, Switzerland	33,256 68	7,391 69	41,804 86	431,195 95
Imperial	London	149,892 00		278,495 00	4,220,946 00
Lancashire	Manchester	353,898 58	34,656 28	31,255 58	2,984,343 98
Lion Fire	London	130,517 00		935 00	845,215 00
Liverpool and London and Globe	Liverpool	852,625 58	71,115 69	241,926 75	6,820,552 29
London	London	211,943 56	36,664 87	139,573 06	3,946,038 79
London and Lancashire	Liverpool	211,903 50	42,645 54	87,924 53	2,489,380 67
London and Provincial Fire*	London				
Manchester Fire	Manchester	61,624 04	1,587 19	31,594 33	1,336,351 30
National	Dublin	59,950 00			793,628 00
National Fire and Marine	Dunedin, New Zealand	89,690 00	5,006 90	46,038 77	1,108,354 50
New Zealand	Auckland	252,860 00	6,875 00	11,795 00	1,084,122 00
North British and Mercantile	London	797,720 70	15,184 12	10,320 33	5,994,087 58
North German Fire	Hamburg	113,540 03		13,765 30	476,135 95
Northern	London	523,263 02	44,601 75	13,318 52	3,973,768 58
Norwich Union	Norwich, England	150,687 68	33,439 77	107,188 16	2,982,628 14
Phœnix	London	316,365 04	8,878 27	262 18	4,223,396 77
Prussian National	Stettin	26,621 00	3,121 00	43,523 96	543,924 39
Queen	Liverpool	836,000 00			2,800,266 97
Royal	Liverpool	1,457,655 00			5,450,873 75
Scottish Union and National	Edinburgh	138,983 75	15,720 39		2,589,954 24
South British Fire and Marine	Auckland	151,270 00	7,650 00	715 00	1,513,101 00
Svea	Gothenburg, Sweden	72,518 02	3,624 87		1,529,423 60
Transatlantic Fire	Hamburg	38,407 38	11,421 39	50,267 73	435,730 93
Union Fire and Marine	Christchurch, New Zealand	130,457 62		30,000 00	601,030 92
United Fire Reinsurance*	Manchester				
Western	Toronto	54,142 39	26,813 13	97,056 02	1,565,112 41
Totals		$8,214,457 35	$475,037 40	$1,541,386 69	$71,165,341 34

* No report.

TABLE No. 29.

Showing amount of Risks written, Premiums received, and amount of Risks in force on the thirty-first day of December, 1884, with Premiums thereon, of Fire and Fire and Marine Insurance Companies doing business in California—Companies of Foreign Countries.

Name.	Location.	Risks Written during the Year.				
		Fire.	Premiums.	Marine.	Premiums.	Total Premiums.
British America	Toronto	$63,730,483 00	$801,522 13	$10,633,089 00	$93,391 55	$894,913 68
City of London Fire	London	285,913,268 00	1,715,479 61			1,715,479 61
Commercial Union	London	1,107,463,860 00	4,835,938 98	129,442,700 00	1,276,890 00	6,112,828 98
Fire Insurance Association	London	277,022,106 00	1,805,747 24			1,805,747 24
Guardian*	London					
Hamburg Bremen	Hamburg	193,392,708 00	1,115,066 10			1,115,066 10
Hamburg Magdeburg	Hamburg	40,213,170 00	258,497 84			258,497 84
Helvetia Swiss Fire	St. Gall, Switzerland	474,526,629 00	928,132 78			928,132 78
Imperial	London	1,335,188,190 00	4,476,845 00			4,476,845 00
Lancashire	Manchester	1,072,124,633 00	3,216,372 25			3,216,372 25
Lion Fire	London	268,256,750 00	1,073,027 00			1,073,027 00
Liverpool and London and Globe	Liverpool	2,000,499,645 00	8,237,220 73			8,237,220 73
London	London	461,659,240 00	1,444,906 37	119,718,150 00	1,506,090 97	2,950,997 34
London and Lancashire	Liverpool	800,501,555 00	2,678,796 69			2,678,796 69
London and Provincial Fire*	London					
Manchester Fire	Manchester	500,268,330 00	1,500,807 00			1,500,807 00
National	Dublin					
National Fire and Marine	Dunedin, N. Z.	181,448,921 00	754,085 33	35,344,545 00	540,572 72	1,294,658 05
New Zealand	Auckland	108,728,660 00	669,767 00	74,776,595 00	815,850 00	1,485,617 00
North British and Mercantile	London	2,176,272,535 00	5,570,343 25			5,570,343 25
North German Fire	Hamburg	262,300,962 00	885,059 63			885,059 63
Northern	London	933,014,842 00	2,865,890 56			2,865,890 56
Norwich Union	Norwich, England					
Phœnix	London	1,247,274,875 00	4,157,582 90			4,157,582 90
Prussian National	Stettin	401,321,821 00	753,166 99	12,153,242 00	50,323 97	803,490 96
Queen	Liverpool	718,600,000 00	2,740,250 00			2,740,250 00
Royal	Liverpool	1,754,291,190 00	6,981,747 35			6,981,747 35
Scottish Union and National	Edinburgh	484,716,169 00	1,545,851 96			1,545,851 96
South British Fire and Marine	Auckland	189,469,765 00	1,059,594 00	84,077,610 00	1,109,427 00	2,169,021 00
Svea	Gothenburg, Sweden	160,457,728 00	1,364,325 53			1,364,325 53
Transatlantic Fire	Hamburg	218,495,147 00	1,229,184 05			1,229,184 05

Union Fire and Marine	Christchurch, N. Z.	43,308,545 00	324,253 62	46,902,635 00	551,568 77	875,822 39
United Fire Reinsurance*	Manchester					
Western	Toronto	106,967,129 00	1,510,885 12	24,763,161 00	326,469 98	1,837,355 10
Totals		$17,867,431,847 00	$66,500,347 01	$537,811,727 00	$6,270,584 96	$72,770,931 97

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* No report.

TABLE No. 29—Continued.

NAME.	Location.	Risks in Force December 31, 1884.				
		Fire.	Premiums.	Marine.	Premiums.	Total Premiums.
British America	Toronto	$64,095,821 00	$830,844 37	$772,441 00	$36,744 93	$867,589 30
City of London Fire	London	157,096,431 00	1,016,971 84			1,016,971 84
Commercial Union	London	839,753,420 00	3,714,388 67	33,399,390 00	591,590 00	4,305,978 67
Fire Insurance Association	London	153,302,496 00	984,307 18			984,307 18
Guardian*	London					
Hamburg Bremen	Hamburg	76,492,013 00	526,276 42			526,276 42
Hamburg Magdeburg	Hamburg	9,801,231 00	69,964 21			69,964 21
Helvetia Swiss Fire	St. Gall, Switzerland	158,843,107 00	299,322 82			299,322 82
Imperial	London	578,230,010 00	1,958,525 00			1,958,525 00
Lancashire	Manchester	871,035,850 00	2,627,648 54			2,627,648 54
Lion Fire	London	186,727,750 00	746,911 00			746,911 00
Liverpool and London and Globe	Liverpool	1,729,456,240 00	7,671,704 14			7,671,704 14
London	London	449,923,975 00	1,750,032 79	21,374,975 00	437,755 35	2,187,788 14
London and Lancashire	Liverpool	659,416,943 00	2,036,007 41			2,036,007 41
London and Provincial Fire*	London					
Manchester Fire	Manchester	310,128,330 00	930,387 00			930,387 00
National	Dublin	183,454,500 00	799,835 00			799,835 00
National Fire and Marine	Dunedin, N. Z.	140,418,048 00	577,420 10	5,691,590 00	144,341 92	721,762 02
New Zealand	Auckland	88,429,270 00	554,185 00	10,146,680 00	116,165 00	670,350 00
North British and Mercantile	London	1,460,853,365 00	3,713,562 19			3,713,562 19
North German Fire	Hamburg	185,557,249 00	507,050 07			507,050 07
Northern	London	622,009,895 00	1,910,593 71			1,910,593 71
Norwich Union	Norwich, England	1,023,276,580 00	2,878,666 08			2,878,666 08
Phœnix	London	1,247,274,875 00	4,157,582 90			4,157,582 90
Prussian National	Stettin	306,690,294 00	343,677 75	52,608 00	6,936 16	350,613 91
Queen	Liverpool	616,517,640 00	2,902,778 00			2,902,778 00
Royal	Liverpool	1,341,612,855 00	6,170,527 66			6,170,527 66
Scottish Union and National	Edinburgh	343,475,208 00	725,549 70			725,549 70
South British Fire and Marine	Auckland	104,637,290 00	801,736 00	30,209,225 00	514,489 00	1,316,225 00
Svea	Gothenburg, Sweden	141,024,036 00	314,074 93			314,074 93
Transatlantic Fire	Hamburg	93,112,624 00	493,853 30			493,853 30
Union Fire and Marine	Christchurch, N. Z.	30,773,365 00	206,494 64	9,309,800 00	106,578 33	313,072 97
United Fire Reinsurance*	Manchester					
Western	Toronto	100,373,432 00	1,336,084 94	1,400,328 00	38,826 57	1,374,911 51
Totals		$14,273,794,143 00	$53,556,963 36	$112,357,037 00	$1,993,427 26	$55,550,390 62

* No report.

TABLE No. 30.

Summary of Assets, Liabilities, Income, Expenditures, etc., of Marine Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Location.	Cash Capital paid up.	Assets.	Liabilities, Capital not included.	Income.
Alliance Marine	London	$1,250,000 00	$1,898,862 22	$289,765 25	$469,865 00
Baloise	Basle, Switzerland	200,000 00	670,113 21	186,825 14	494,408 21
British and Foreign Marine	Liverpool	960,000 00	4,514,698 28	885,296 54	1,903,443 10
Boston Marine	Boston	1,000,000 00	2,134,210 27	623,969 72	1,286,261 48
Canton	Hong Kong	500,000 00	1,165,617 11	241,545 84	1,240,328 61
China Traders'	Hong Kong	600,000 00	1,651,238 04	192,344 46	769,978 63
Chinese	Hong Kong	300,000 00	367,706 26	77,131 13	220,266 19
Danube	Vienna	480,000 00	2,229,829 20	1,497,509 11	635,787 43
Fonciere	Paris	1,250,000 00	2,004,424 22	601,256 04	1,324,997 02
Globe Marine	London	500,000 00	556,391 49	61,181 02	334,799 00
Great Western	New York	662,080 00	910,156 33	177,220 08	476,506 06
Helvetia Marine	St. Gall, Switzerland	363,200 00	1,292,166 33	434,976 93	644,992 77
International Marine	Liverpool	400,000 00	884,686 33	357,960 06	586,902 25
London and Provincial Marine	London	500,000 00	1,457,623 59	313,500 20	811,362 06
Magdeburg General	Magdeburg	750,000 00	2,810,557 42	1,884,775 10	1,051,255 09
Mannheim	Mannheim	200,000 00	703,071 84	330,767 11	677,471 67
Man On	Hong Kong	500,000 00	584,631 15	47,750 00	176,880 80
Maritime	Liverpool	500,000 00	1,393,587 28	257,616 87	499,170 59
National Marine	London	467,425 00	776,423 00	271,565 00	685,898 00
North China	Shanghai	1,200,000 00	2,123,398 24	290,500 00	1,607,478 78
On Tai	Hong Kong	416,666 66	570,306 55	5,040 21	213,175 81
Reliance Marine	Liverpool	400,000 00	792,258 66	155,534 37	409,542 59
Sea	Liverpool	500,000 00	2,154,279 23	937,068 72	1,032,165 00
Standard Marine	Liverpool	500,000 00	1,145,732 62	232,701 15	455,370 35
Straits	Singapore	400,000 00	630,135 33	73,716 42	377,208 15
Switzerland Marine	Zurich	200,000 00	513,714 54	223,238 07	427,251 36
Thames and Mersey	Liverpool	1,000,000 00	5,352,808 44	1,370,479 33	1,861,996 27
The Marine	London	900,000 00	4,949,995 00	202,155 00	1,050,180 00
Transatlantic Marine	Berlin	225,000 00	652,102 00	253,846 88	598,720 48
Union	Hong Kong	250,000 00	1,477,529 84	441,805 64	1,355,852 44
Union Marine	Liverpool	711,200 00	2,019,032 84	479,999 15	1,158,490 35
Universal Marine	London	750,000 00	2,395,076 39	309,006 08	901,963 77
Yangtsze	Shanghai	1,000,000 00	1,301,569 75	149,934 90	558,359 50
Totals		$19,835,571 66	$54,083,933 00	$13,857,981 52	$26,298,328 81

TABLE No. 30—Continued.

NAME.	Location.	Expenditures.	Losses Incurred during the year.	Net Surplus.
Alliance Marine	London	$487,388 03	$118,820 00	$359,096 97
Baloise	Basle, Switzerland	452,157 32	446,783 46	283,288 07
British and Foreign Marine	Liverpool	1,750,347 42	1,311,256 30	2,669,401 74
Boston Marine	Boston	1,272,548 46	957,197 42	510,240 55
Canton	Hong Kong	898,343 96	586,449 00	424,071 27
China Traders'	Hong Kong	699,385 20	320,000 00	858,893 58
Chinese	Hong Kong	193,655 26	123,424 31	
Danube	Vienna	598,899 25	74,497 00	252,320 09
Fonciere	Paris	1,113,077 72	753,815 25	153,168 18
Globe Marine	London	305,245 90	242,290 76	
Great Western	New York	422,193 35	380,312 75	70,856 25
Helvetia Marine	St. Gall, Switzerland	532,093 62	406,288 61	493,589 40
International Marine	Liverpool	453,980 94	475,851 16	126,726 27
London and Provincial Marine	London	836,018 76	686,567 06	644,123 39
Magdeburg General	Magdeburg	692,752 04	35,349 62	175,782 31
Mannheim	Mannheim	616,683 03	518,888 00	172,304 73
Man On	Hong Kong	176,089 00	84,797 45	36,881 15
Maritime	Liverpool	453,873 01	348,970 00	635,970 41
National Marine	London	733,335 00	607,494 00	37,433 00
North China	Shanghai	620,502 02	456,102 80	632,898 24
On Tai	Hong Kong	199,647 06	88,307 40	148,599 68
Reliance Marine	Liverpool	327,731 11	238,229 16	236,724 29
Sea	Liverpool	1,325,618 93	1,285,090 00	717,210 50
Standard Marine	Liverpool	532,581 13	451,515 00	413,031 47
Straits	Singapore	160,618 50	85,667 06	156,418 91
Switzerland Marine	Zurich	392,798 45	594,291 07	90,476 47
Thames and Mersey	Liverpool	1,905,650 18	1,435,799 27	2,982,329 11
The Marine	London	880,125 00	394,950 00	3,847,840 00
Transatlantic Marine	Berlin	354,895 72	279,390 88	173,255 12
Union	Hong Kong	709,695 07	872,222 33	785,724 20
Union Marine	Liverpool	1,059,535 53	1,107,481 17	827,833 69
Universal Marine	London	759,446 35	562,913 77	1,336,070 31
Yangtsze	Shanghai	522,589 02	199,950 43	150,634 85
Totals		$22,439,501 34	$16,530,962 49	$20,403,194 20

TABLE NO. 31.

Showing the various items composing the Assets of Marine Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Location.	Real Estate.	Mortgage Loans.	Stocks and Bonds Owned by the Company.	Collateral Loans.	Cash in Office and Banks.
Alliance Marine	London	$100,000 00		$1,656,495 16		$74,953 87
Baloise	Basle, Switzerland	77,400 00		286,316 19		57,823 59
British and Foreign Marine	Liverpool			2,780,958 10	$1,160,211 50	88,152 92
Boston Marine	Boston		$136,400 00	831,439 25	65,400 00	384,704 51
Canton	Hong Kong			298,105 56	200,000 00	543,537 14
China Traders'	Hong Kong	58,000 00	334,258 40	268,609 42		861,007 28
Chinese	Hong Kong		55,000 00	241,438 47		19,070 59
Danube	Vienna	435,888 00	450,528 00	858,556 60		268,098 54
Fonciere	Paris	194,924 86		572,936 20		505,023 41
Globe Marine	London			453,618 00	12,700 00	14,208 60
Great Western	New York			730,800 00		40,562 30
Helvetia Marine	St. Gall, Switzerland	85,600 00	367,711 52	174,888 80		331,910 45
International Marine	Liverpool			598,492 00	117,500 00	64,538 00
London and Provincial Marine	London			831,961 02		439,237 35
Magdeburg General	Magdeburg		1,949,655 00	646,446 26		29,873 30
Mannheim	Mannheim	19,250 00	146,750 00	53,999 62		158,946 77
Man On	Hong Kong	36,500 00	125,500 85			309,340 30
Maritime	Liverpool			1,202,901 00		87,804 70
National Marine	London			415,560 00		263,290 00
North China	Shanghai	58,140 00	14,000 00	791,243 00		1,014,432 10
On Tai	Hong Kong		144,900 00			411,823 48
Reliance Marine	Liverpool			334,988 75	363,350 00	26,277 91
Sea	Liverpool			1,177,487 50	681,299 62	78,449 75
Standard Marine	Liverpool			823,620 00	196,475 00	39,947 44
Straits	Singapore		308,000 00	2,747 41		218,391 32
Switzerland Marine	Zurich		40,000 00	249,444 76		74,950 52
Thames and Mersey	Liverpool			4,493,907 75		365,638 43
The Marine	London	350,000 00		4,280,972 60		62,705 40
Transatlantic Marine	Berlin		178,000 00	89,546 49		232,387 89
Union	Hong Kong		205,000 00	548,083 54		534,969 30
Union Marine	Liverpool		15,000 00	1,465.387 27	220,000 00	16,126 02
Universal Marine	London	156,453 68		1,815,022 25		246,487 81
Yangtsze	Shanghai		186,250 00	462,715 00		627,160 61
Totals		$1,572,156 54	$4,656,953 77	$29,438,687 97	$3,016,936 12	$8,491,831 60

TABLE No. 31—Continued.

NAME.	Location.	Interest Due and Accrued.	Premiums in course of Collection.	Bills Receivable, not matured, taken for Marine Risks.	All other Assets.	Total Assets.
Alliance Marine	London	$1,023 75	$57,016 39	$9,373 05		$1,898,862 22
Baloise	Basle, Switzerland		248,573 43			670,113 21
British and Foreign Marine	Liverpool	10,382 08	321,269 86	139,022 30	$14,701 52	4,514,698 28
Boston Marine	Boston	4,956 05	150,349 26	560,961 20		2,134,210 27
Canton	Hong Kong	16,265 73	79,208 68	28,500 00		1,165,617 11
China Traders'	Hong Kong	20,777 32	84,029 24		24,556 38	1,651,238 04
Chinese	Hong Kong	2,860 53	34,592 84	11,309 90	3,433 93	367,706 26
Danube	Vienna	5,983 88	210,774 18			2,229,829 20
Fonciere	Paris		705,242 28	20,614 07	5,683 40	2,004,424 22
Globe Marine	London		73,958 07	1,906 82		556,391 49
Great Western	New York	10,262 50	85,387 05	40,782 04	2,362 44	910,156 33
Helvetia Marine	St. Gall, Switzerland	9,855 03	277,566 12		44,634 41	1,292,166 33
International Marine	Liverpool	7,894 42	92,271 82		3,990 09	884,686 33
London and Provincial Marine	London	7,658 64	178,060 06		706 52	1,457,623 59
Magdeburg General	Magdeburg	2,211 59	116,392 71	23,928 81	42,049 75	2,810,557 42
Mannheim	Mannheim	11,504 56	280,948 72	10,062 17	21,610 00	703,071 84
Man On	Hong Kong	4,500 00	15,190 00	93,600 00		584,631 15
Maritime	Liverpool		102,497 50		384 08	1,393,587 28
National Marine	London	11,816 00	79,945 00	751 00	5,061 00	776,423 00
North China	Shanghai	210 00	245,373 14			2,123,398 24
On Tai	Hong Kong	5,491 90	948 40		7,142 77	570,306 55
Reliance Marine	Liverpool	2,684 60	56,087 25		8,870 15	792,258 66
Sea	Liverpool	4,619 14	79,068 10		133,355 12	2,154,279 23
Standard Marine	Liverpool		84,475 10	769 73	445 35	1,145,732 62
Straits	Singapore	3,306 91	55,869 51		41,820 18	630,135 33
Switzerland Marine	Zurich		88,879 09	60,440 17		513,714 54
Thames and Mersey	Liverpool	72,758 75	371,436 25	41,554 80	7,512 46	5,352,808 44
The Marine	London		230,292 50	17,137 50	8,887 00	4,949,995 00
Transatlantic Marine	Berlin		133,969 20	18,198 42		652,102 00
Union	Hong Kong	62,043 07	127,433 93			1,477,529 84
Union Marine	Liverpool	13,911 94	216,724 67	46,801 71	25,081 23	2,019,032 84
Universal Marine	London		128,694 52	20,918 13	27,500 00	2,395,076 39
Yangtsze	Shanghai	4,962 00	16,732 14		3,750 00	1,301,569 75
Totals		$297,940 39	$5,029,257 01	$1,146,631 82	$433,537 78	$54,083,933 00

TABLE NO. 32.

Showing the various items composing the Liabilities, except Capital Stock, of Marine Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Location.	Losses Adjusted.	Losses Unadjusted.	Losses Resisted.	Cash Dividends.
Alliance Marine	London	$44,190 00			$6,535 00
Baloise	Basle, Switzerland	106,945 80			195 80
British and Foreign Marine	Liverpool	6,000 00	$328,555 20		834 72
Boston Marine	Boston	9,092 37	228,526 00		
Canton	Hong Kong	12,860 00	28,820 00		1,225 00
China Traders'	Hong Kong		75,000 00		3,679 30
Chinese	Hong Kong		48,500 00		
Danube	Vienna	31,169 01			
Fonciere	Paris	242,457 67			7,774 01
Globe Marine	London	307 52			
Great Western	New York	12,007 72	43,450 00	$27,175 00	1,617 40
Helvetia Marine	St. Gall, Switzerland	263,379 21			
International Marine	Liverpool	4,206 16	127,500 00		15 00
London and Provincial Marine	London	51,305 00			
Magdeburg General	Magdeburg		12,593 25		438 50
Mannheim	Mannheim	107,065 00			1,694 50
Man On	Hong Kong		45,250 00		
Maritime	Liverpool	91,510 00			
National Marine	London		24,200 00		10 00
North China	Shanghai		60,000 00		
On Tai	Hong Kong		2,518 26		
Reliance Marine	Liverpool	49,985 00			194 37
Sea	Liverpool	17,905 97	472,420 00	47,950 00	50 00
Standard Marine	Liverpool		134,715 00		30 00
Straits	Singapore	30,000 00			
Switzerland Marine	Zurich		103,466 80		41 00
Thames and Mersey	Liverpool	279,565 00			1,518 50
The Marine	London	62,635 00	27,020 00		
Transatlantic Marine	Berlin	77,717 00			1,503 81
Union	Hong Kong		363,255 28		
Union Marine	Liverpool	175,000 00			263 25
Universal Marine	London	659 83	29,040 00		616 25
Yangtsze	Shanghai	41,414 82	54,140 68		476 87
Totals		$1,717,378 08	$2,208,970 47	$75,125 00	$28,713 28

TABLE No. 32—Continued.

NAME.	Location.	Marine Reinsurance.	All other Claims.	Total Liabilities, Capital not included.	Net Surplus.
Alliance Marine	London	$197,535 00	$41,505 25	$289,765 25	$359,096 97
Baloise	Basle, Switzerland	79,683 54		186,825 14	283,288 07
British and Foreign Marine	Liverpool	466,761 60	83,145 02	885,296 54	2,669,401 74
Boston Marine	Boston	386,351 35		623,969 72	510,240 55
Canton	Hong Kong	156,650 00	41,990 84	241,545 84	424,071 27
China Traders'	Hong Kong	107,686 25	5,978 91	192,344 46	858,893 58
Chinese	Hong Kong	15,562 00	13,069 13	77,131 13	
Danube	Vienna	11,782 96	1,454,557 14	1,497,509 11	252,320 09
Fonciere	Paris	301,976 95	49,047 41	601,256 04	153,168 18
Globe Marine	London	50,008 80	10,864 70	61,181 02	
Great Western	New York	77,987 00	14,982 96	177,220 08	70,856 25
Helvetia Marine	St. Gall, Switzerland	90,955 77	80,641 95	434,976 93	493,589 40
International Marine	Liverpool	168,336 50	57,902 40	357,960 06	126,726 27
London and Provincial Marine	London	246,197 02	15,998 18	313,500 20	644,123 39
Magdeburg General	Magdeburg	5,417 80	1,866,325 55	1,884,775 10	175,782 31
Mannheim	Mannheim	201,332 61	20,675 00	330,767 11	172,304 73
Man On	Hong Kong	2,500 00		47,750 00	36,881 15
Maritime	Liverpool	149,430 00	16,676 87	257,616 87	635,970 41
National Marine	London	247,355 00		271,565 00	37,433 00
North China	Shanghai	230,000 00	500 00	290,500 00	632,898 24
On Tai	Hong Kong	2,521 95		5,040 21	148,599 68
Reliance Marine	Liverpool	87,609 41	17,745 59	155,534 37	236,724 29
Sea	Liverpool	268,656 06	130,086 69	937,068 72	717,210 50
Standard Marine	Liverpool	64,380 00	33,576 15	232,701 15	413,031 47
Straits	Singapore	42,772 00	944 42	73,716 42	156,418 91
Switzerland Marine	Zurich	60,000 00	59,730 27	223,238 07	90,476 47
Thames and Mersey	Liverpool	943,875 00	145,520 83	1,370,479 33	2,982,329 11
The Marine	London	112,500 00		202,155 00	3,847,840 00
Transatlantic Marine	Berlin	77,852 63	96,773 44	253,846 88	173,255 12
Union	Hong Kong	78,550 36		441,805 64	785,724 20
Union Marine	Liverpool	210,730 65	94,005 25	479,999 15	827,833 69
Universal Marine	London	278,690 00		309,006 08	1,336,070 31
Yangtsze	Shanghai	34,727 50	19,175 03	149,934 90	150,634 85
Totals		$5,456,375 71	$4,371,418 98	$13,857,981 52	$20,403,194 20

TABLE No. 33.

Showing the various items composing the Incomes of Marine Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Location.	Marine Premiums.	Interest on Bonds and Mortgages.	Interest and Dividends from other sources.	Received from all other sources.	Total Income.
Alliance Marine	London	$412,415 00		$57,450 00		$469,865 00
Baloise	Basle, Switzerland	472,606 18	$17,806 36		$3,995 67	494,408 21
British and Foreign Marine	Liverpool	1,753,215 36		150,081 94	145 80	1,903,443 10
Boston Marine	Boston	1,218,861 01		67,400 47		1,286,261 48
Canton	Hong Kong	1,191,906 33	12,082 00	34,820 00	1,520 28	1,240,328 61
China Traders'	Hong Kong	701,647 34		68,235 34	95 95	769,978 63
Chinese	Hong Kong	194,109 43	1,350 97	24,026 31	779 48	220,266 19
Danube	Vienna	74,155 51	39,571 37	23,779 78	498,280 77	635,787 43
Fonciere	Paris	1,285,867 39	23,905 43	15,224 20		1,324,997 02
Globe Marine	London	315,703 82		19,026 43	68 75	334,799 00
Great Western	New York	447,824 33		28,681 73		476,506 06
Helvetia Marine	St. Gall, Switzerland	611,620 75		33,372 02		644,992 77
International Marine	Liverpool	559,789 09		26,996 91	116 25	586,902 25
London and Provincial Marine	London	746,494 25		64,867 81		811,362 06
Magdeburg General	Magdeburg	77,075 41		21,040 43	953,139 25	1,051,255 09
Mannheim	Mannheim	666,093 62	5,873 49	5,504 56		677,471 67
Man On	Hong Kong	160,501 60	12,733 00	3,646 20		176,880 80
Maritime	Liverpool	452,174 45		46,787 98	208 16	499,170 59
National Marine	London	636,368 00		49,530 00		685,898 00
North China	Shanghai	1,548,966 74	600 00	57,112 04	800 00	1,607,478 78
On Tai	Hong Kong	173,413 72	15,036 52	10,142 83	14,582 74	213,175 81
Reliance Marine	Liverpool	385,915 04		23,510 68	116 87	409,542 59
Sea	Liverpool	934,615 97		96,909 91	639 12	1,032,165 00
Standard Marine	Liverpool	417,530 15		37,780 20	60 00	455,370 35
Straits	Singapore	353,183 64		24,024 51		377,208 15
Switzerland Marine	Zurich	411,150 31		16,101 05		427,251 36
Thames and Mersey	Liverpool	1,675,712 63		171,744 35	14,539 29	1,861,996 27
The Marine	London	877,950 00		172,230 00		1,050,180 00
Transatlantic Marine	Berlin	581,383 24	16,434 41		902 83	598,720 48
Union	Hong Kong	1,291,417 07		64,435 37		1,355,852 44
Union Marine	Liverpool	1,094,734 74		63,686 24	69 37	1,158,490 35
Universal Marine	London	827,003 00		74,960 77		901,963 77
Yangtsze	Shanghai	415,686 14	19,314 81	45,234 73	78,123 82	558,359 50
Totals		$22,967,091 26	$164,708 36	$1,598,344 79	$1,568,184 40	$26,298,328 81

TABLE No. 34.

Showing the various items composing the Expenditures of Marine Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Location.	Marine Losses.	Dividends.	Brokerage and Commissions.	Office Salaries.	Taxes.	All other Expenditures.	Total Expenditures.
Alliance Marine	London	$365,846 35	$50,105 00	$2,874 41	$49,020 83	$902 22	$18,639 22	$487,388 03
Baloise	Basle, Switzerland	309,214 50	60,000 00	56,752 79	26,190 03			452,157 32
British and Foreign Marine	Liverpool	1,311,256 30	264,000 00	14,895 54	153,863 18	6,332 40		1,750,347 42
Boston Marine	Boston	927,936 57	100,000 00	97,620 50	34,356 15	22,260 14	90,375 10	1,272,548 46
Canton	Hong Kong	571,107 38	46,250 00	44,642 90	41,454 75		194,888 93	898,343 96
China Traders'	Hong Kong	414,217 67	72,045 70	20,680 70	88,538 33		103,902 80	699,385 20
Chinese	Hong Kong	123,424 31	18,000 00	9,630 77	32,640 52	121 88	9,837 78	193,655 26
Danube	Vienna	74,497 00	48,000 00	109,322 38	133,001 78	16,906 04	217,172 05	598,899 25
Fonciere	Paris	753,815 25		182,603 28	176,659 19			1,113,077 72
Globe Marine	London	242,290 76	25,000 00		37,955 14			305,245 90
Great Western	New York	340,974 31	29 40	38,066 87	38,817 37	4,305 40		422,193 35
Helvetia Marine	St. Gall, Switzerland	406,288 61		74,975 70	40,535 37	10,293 94		532,093 62
International Marine	Liverpool	391,107 75	20,000 00	14,567 25	28,265 94	40 00		453,980 94
London and Provincial Marine	London	686,567 06	75,000 00		55,734 27	1,700 85	17,016 58	836,018 76
Magdeburg General	Magdeburg	31,844 11	61,875 00	7,426 35	11,407 20	117 30	580,082 08	692,752 04
Mannheim	Mannheim	441,057 00	30,000 00	44,978 12	62,407 91	240 00	38,000 00	616,683 03
Man On	Hong Kong	84,797 45	45,230 00	18,422 95	10,437 00	911 60	16,260 00	176,089 00
Maritime	Liverpool	347,079 83	62,500 00		34,103 18		10,190 00	453,873 01
National Marine	London	502,559 00	30,706 00	130,995 00	47,000 00		22,075 00	733,335 00
North China	Shanghai	456,506 53		26,301 69	103,770 00	60 00	33,863 80	620,502 02
On Tai	Hong Kong	88,307 40	30,086 78	4,982 21	22,543 00	1,074 11	52,653 56	199,647 06
Reliance Marine	Liverpool	253,059 16	25,000 00		49,671 95			327,731 11
Sea	Liverpool	1,228,889 15	50,000 00		43,622 43	3,107 35		1,325,618 93
Standard Marine	Liverpool	467,385 76	25,000 00		40,195 37			532,581 13
Straits	Singapore	85,667 06	24,961 33	14,790 95	35,199 16			160,618 50
Switzerland Marine	Zurich	289,913 27		33,405 20	40,987 82	6,184 26	22,307 90	392,798 45
Thames and Mersey	Liverpool	1,435,799 27	298,481 50		167,541 47	3,827 94		1,905,650 18
The Marine	London	394,950 00	375,000 00		110,175 00			880,125 00
Transatlantic Marine	Berlin	279,390 88		36,913 11	23,063 03	10,000 00	5,528 70	354,895 72
Union	Hong Kong	560,967 33		25,309 04	72,316 11		51,102 59	709,695 07
Union Marine	Liverpool	932,481 17	53,340 00	5,943 92	67,770 44			1,059,535 53
Universal Marine	London	562,913 77	93,750 00		102,782 58			759,446 35
Yangtsze	Shanghai	104,394 93	70,000 00	23,516 69	56,562 52	101 00	268,013 88	522,589 02
Totals		$15,466,506 89	$2,054,360 71	$1,039,618 32	$2,038,589 02	$88,516 43	$1,751,909 97	$22,439,501 34

TABLE No. 35.

Showing amount of Risks written, Premiums received, and amount of Risks in force on the thirty-first day of December, 1884, with Premiums thereon, of Marine Insurance Companies doing business in California.

NAME.	Location	Marine Risks written during the year.	Premiums.	Marine Risks in force December 31, 1884.	Premiums.
Alliance Marine	London	$74,067,490 00	$582,075 00	$15,523,675 00	$197,535 00
Baloise	Basle, Switzerland	554,340,060 00	668,271 67	46,095,720 00	79,683 54
British and Foreign Marine	Liverpool	302,738,174 00	2,289,873 60	21,626,952 00	415,185 60
Boston Marine	Boston	79,941,022 00	1,337,514 75	10,860,575 00	386,351 35
Canton	Hong Kong	153,623,573 00	1,441,548 10	22,398,713 00	83,072 00
China Traders'	Hong Kong			8,430,000 00	45,000 00
Chinese	Hong Kong	31,380,165 00	299,054 85	1,379,468 00	20,365 00
Danube	Vienna	27,748,559 00	99,102 02	2,808,653 00	11,582 95
Fonciere	Paris	747,727,559 00	1,284,636 41	24,329,771 00	301,976 95
Globe Marine	London	40,138,085 00	387,994 10	5,059,140 00	50,008 82
Great Western	New York	47,615,258 00	560,768 48	6,607,047 00	77,987 00
Helvetia Marine	St. Gall, Switzerland	641,746,826 00	847,916 50	7,004,888 00	90,955 78
International Marine	Liverpool	44,227,320 00	559,789 08	8,804,815 00	224,449 40
London and Provincial Marine	London	122,404,635 00	911,759 54	13,104,935 00	246,197 02
Magdeburg General	Magdeburg	138,353,824 00	98,925 79	2,053,049 00	6,132 86
Mannheim	Mannheim	207,130,296 00	1,095,401 21	25,688,836 00	142,466 61
Man On	Hong Kong	43,282,560 00	161,740 90	11,319,000 00	40,800 80
Maritime	Liverpool	65,021,865 00	452,170 00	9,697,435 00	199,230 00
National Marine	London	56,326,965 00	903,475 00	11,232,515 00	247,355 00
North China	Shanghai				
On Tai	Hong Kong			540,353 00	5,043 90
Reliance Marine	Liverpool	56,652,695 00	527,897 72	6,373,430 00	122,996 31
Sea	Liverpool	56,022,445 00	942,126 06	10,826,405 00	268,656 06
Standard Marine	Liverpool	40,449,660 00	417,530 30	6,229,955 00	64,380 00
Straits	Singapore	34,211,417 00	366,175 95	5,082,612 00	42,772 00
Switzerland Marine	Zurich				
Thames and Mersey	Liverpool	176,263,430 00	1,728,135 00	49,511,950 00	943,875 00
The Marine	London				
Transatlantic Marine	Berlin	126,949,634 00	590,133 19	6,984,330 00	77,852 63
Union	Hong Kong				
Union Marine	Liverpool			19,773,000 00	269,305 13
Universal Marine	London	82,349,570 00	1,001,925 00	14,728,215 00	438,270 00
Yangtsze	Shanghai	69,247,368 00	492,526 69	2,570,953 00	34,727 50
Totals		$4,019,960,455 00	$20,048,466 91	$379,647,390 00	$5,134,214 22

TABLE NO. 36—RECAPITULATION.

Summary of Assets, Liabilities, Income, Expenditures, etc., of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Cash Capital paid up.	Assets.	Liabilities, Capital not included.	Income.	Expenditures.	Losses Incurred during the year.	Net Surplus.
California companies	$3,500,000 00	$6,427,846 95	$1,990,690 90	$3,432,912 65	$3,271,793 95	$1,754,958 42	$937,183 05
Companies of other States	37,073,100 00	102,226,308 87	40,861,551 55	52,222,450 31	50,908,942 17	29,916,046 52	24,295,029 35
Companies of foreign countries	29,306,570 42	201,688,733 67	126,613,734 48	74,348,823 90	71,165,341 34	42,684,060 88	46,201,899 63
Marine companies	19,835,571 66	54,083,933 00	13,857,981 52	26,298,328 81	22,439,501 34	16,530,962 49	20,403,194 20
Totals	$89,715,242 08	$364,426,822 49	$183,323,958 45	$156,302,515 67	$147,785,578 80	$90,886,028 31	$91,837,306 23

TABLE No. 37—RECAPITULATION.

Showing the various items composing the Assets of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Real Estate.	Mortgage Loans.	Stocks and Bonds Owned.	Collateral Loans.	Cash in Office and Banks.
California companies	$969,070 43	$1,351,298 99	$2,458,156 07	$287,450 00	$708,554 14
Companies of other States	7,340,193 11	14,632,331 05	63,061,733 76	3,338,409 82	6,278,111 03
Companies of foreign countries	17,692,774 89	50,466,763 14	85,300,497 12	12,463,554 89	10,172,332 93
Marine companies	1,572,156 54	4,656,953 77	29,438,687 97	3,016,936 12	8,491,831 60
Totals	$27,574,194 97	$71,107,346 95	$180,259,074 92	$19,106,350 83	$25,650,829 70

NAME.	Interest Due and Accrued.	Premiums in course of Collection.	Bills Receivable, not matured, taken for Fire, Marine, and Inland risks.	All other Assets.	Total Assets.
California companies	$37,346 10	$464,210 23	$92,672 94	$59,088 05	$6,427,846 95
Companies of other States	661,872 09	5,129,221 77	1,112,985 80	671,450 44	102,226,308 87
Companies of foreign countries	1,316,510 50	8,884,829 79	737,252 74	14,654,217 67	201,688,733 67
Marine companies	297,940 39	5,029,257 01	1,146,631 82	433,537 78	54,083,933 00
Totals	$2,313,669 08	$19,507,518 80	$3,089,543 30	$15,818,293 94	$364,426,822 49

TABLE No. 38—RECAPITULATION.

Showing the various items composing the Liabilities of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Losses Adjusted.	Losses Unadjusted.	Losses Resisted.	Cash Dividends remaining unpaid.	Fire Reinsurance.
California companies	$70,312 55	$152,239 58	$37,123 77	$3,168 50	$1,539,950 37
Companies of other States	1,877,125 95	2,745,785 53	565,370 84	29,242 81	34,204,675 72
Companies of foreign countries	4,927,536 04	2,746,702 15	82,274 39	277,517 95	29,273,870 13
Marine companies	1,717,378 08	2,208,970 47	75,125 00	28,713 28	----------
Totals	$8,592,352 62	$7,853,697 73	$759,894 00	$338,642 54	$65,018,496 22

NAME.	Marine Reinsurance.	Liability under Life or other Special Department.	All other Claims.	Total Liabilities.	Net Surplus.
California companies	$150,049 69	----------	$37,846 44	$1,990,690 90	$937,183 05
Companies of other States	561,536 32	----------	877,814 38	40,861,551 55	24,295,029 35
Companies of foreign countries	1,552,567 72	$84,069,909 58	3,683,356 52	126,613,734 48	46,201,899 63
Marine companies	5,456,375 71	----------	4,371,418 98	13,857,981 52	20,403,194 20
Totals	$7,720,529 44	$84,069,909 58	$8,970,436 32	$183,323,958 45	$91,837,306 23

TABLE NO. 39—RECAPITULATION.

Showing the various items composing the Incomes of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Fire Premiums.	Marine Premiums.	Interest on Mortgage Loans.	Interest and Dividends from other sources.	Rents.	From all other sources.	Total Income.
California companies	$2,700,908 47	$452,562 43	$72,506 03	$149,547 45	$57,388 27		$3,432,912 65
Companies of other States	43,518,886 71	4,050,278 68	808,942 57	3,500,243 74	241,070 54	$103,028 07	52,222,450 31
Companies of foreign countries	59,471,117 79	4,662,009 05		5,441,103 85		4,774,593 21	74,348,823 90
Marine companies		22,967,091 26	164,708 36	1,598,344 79		1,568,184 40	26,298,328 81
Totals	$105,690,912 97	$32,131,941 42	$1,046,156 96	$10,689,239 83	$298,458 81	$6,445,805 68	$156,302,515 67

TABLE NO. 40—RECAPITULATION.

Showing the various items composing the Expenditures of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Fire Losses.	Marine Losses.	Dividends.	Brokerage and Commissions.	Office Salaries.	Taxes.	All other Expenditures.	Total Expenditures.
California companies	$1,484,434 87	$200,978 31	$359,922 00	$546,445 17	$309,180 92	$57,550 81	$313,281 87	$3,271,793 95
Companies of other States	26,422,072 73	3,139,096 42	4,512,269 66	8,520,896 46	3,357,561 38	1,201,482 07	3,755,563 45	50,908,942 17
Companies of foreign countries	39,122,360 64	3,403,992 55	5,318,630 11	8,753,150 84	8,214,457 35	475,037 40	5,877,712 45	71,165,341 34
Marine companies		15,466,506 89	2,054,360 71	1,039,618 32	2,038,589 02	88,516 43	1,751,909 97	22,439,501 34
Totals	$67,028,868 24	$22,210,574 17	$12,245,182 48	$18,860,110 79	$13,919,788 67	$1,822,586 71	$11,698,467 74	$147,785,578 80

TABLE No. 41—RECAPITULATION.

Showing amount of Risks written, Premiums received, and amount of Risks in force on the thirty-first day of December, 1884, with Premiums thereon, of Fire and Marine Insurance Companies doing business in California.

NAME.	RISKS WRITTEN DURING THE YEAR.				
	Fire.	Premiums.	Marine.	Premiums.	Total Premiums.
California companies	$235,042,974 00	$3,433,012 76	$35,409,671 00	$625,299 01	$4,058,311 77
Companies of other States	4,742,475,832 00	51,259,316 93	745,908,946 00	5,121,971 31	56,381,288 24
Companies of foreign countries	17,867,431,847 00	66,500,347 01	537,811,727 00	6,270,584 96	72,770,931 97
Marine companies			4,019,960,455 00	20,048,466 91	20,048,466 91
Totals	$22,844,950,653 00	$121,192,676 70	$5,339,090,799 00	$32,066,322 19	$153,258,998 89

NAME.	RISKS IN FORCE DECEMBER 31, 1884.				
	Fire.	Premiums.	Marine.	Premiums.	Total Premiums.
California companies	$203,946,758 00	$2,986,889 52	$5,109,316 00	$254,463 82	$3,241,353 34
Companies of other States	5,432,808,385 00	62,123,427 56	41,902,988 00	731,187 30	62,854,614 86
Companies of foreign countries	14,273,794,143 00	53,556,963 36	112,357,037 00	1,993,427 26	55,550,390 62
Marine companies			379,647,390 00	5,134,214 22	5,134,214 22
Totals	$19,910,549,286 00	$118,667,280 44	$539,016,731 00	$8,113,292 60	$126,780,573 04

TABLE No. 42.

Showing the various items composing the Assets of Life Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Location.	Loans on Mortgages.	Collateral Loans.	Stocks and Bonds.	Cash in Office and Banks.	Real Estate.
Pacific Mutual Life	San Francisco	$849,480 78	$5,544 24	$6,958 39	$90,212 84	$105,879 92
Ætna Life	Hartford	15,427,384 42	477,807 31	8,762,438 79	1,741,705 38	392,637 38
Brooklyn Life	New York	498,924 00	35,300 00	472,422 03	85,757 94	272,800 00
Connecticut Mutual Life	Hartford	27,096,682 82	283,000 00	9,824,075 23	750,110 64	11,755,783 58
Equitable Life	New York	15,494,726 72	5,319,641 08	18,400,407 00	6,073,951 86	10,692,241 67
Germania Life	New York	5,703,372 00	1,500 00	3,201,093 75	400,265 48	1,135,668 27
Hartford Life and Annuity	Hartford	359,297 91	---------------	200,909 00	54,561 60	235,351 21
Manhattan Life	New York	2,966,108 22	3,547,006 61	1,793,597 63	346,856 74	912,912 91
Mutual Benefit Life	Newark	13,184,135 28	6,890,000 00	9,665,892 76	1,417,715 26	2,149,596 87
Mutual Life	New York	46,978,527 96	6,898,387 50	34,522,822 00	2,644,988 54	10,282,693 04
New England Mutual Life	Boston	2,329,348 00	2,298,157 82	9,429,851 62	258,547 33	1,291,778 79
New York Life	New York	21,116,430 00	370,000 00	27,743,223 05	2,222.343 52	5,520,656 63
Northwestern Mutual Life	Milwaukee	17,376,080 54	---------------	862,109 98	1,293,164 56	1,059,664 01
Travelers'	Hartford	3,739,857 10	329,200 00	2,063,736 59	324,227 47	1,115,200 99
Union Mutual Life	Portland, Maine	1,350,573 91	155,750 00	1.846,041 31	110,795 30	1,789,615 60
United States Life	New York	2,416,381 76	219,461 10	1,878,511 10	259,544 17	95,000 00
Washington Life	New York	5,490,889 74	---------------	866,250 00	25,378 11	530,478 66
Totals		$182,378,201 16	$26,830,755 66	$131,540,340 23	$18,100,126 74	$49,337,959 53

TABLE No. 42—Continued.

NAME.	Location.	Premium Notes.	Interest Due and Accrued.	Net uncollected Premiums.	All other Admitted Assets.	Total Assets.
Pacific Mutual Life	San Francisco	$58,548 40	$45,126 58	$51,751 54	$27,734 03	$1,241,236 72
Ætna Life	Hartford	1,950,469 07	519,117 52	164,362 86	247,003 12	29,682,925 85
Brooklyn Life	New York	112,202 43	10,563 53	28,744 62	45,445 69	1,562,160 24
Connecticut Mutual Life	Hartford	2,624,723 57	1,021,652 71	51,906 73	18,777 03	53,426,712 31
Equitable Life	New York		334,214 13	1,163,217 00	70,316 22	57,548,715 68
Germania Life	New York	120,893 47	65,406 82	221,306 48	8,312 51	10,857,818 78
Hartford Life and Annuity	Hartford	72,271 00	13,052 88	4,905 32	319,317 52	1,259,666 44
Manhattan Life	New York	1,221,015 46	107,289 14	147,595 15	3,670 84	11,046,052 70
Mutual Benefit Life	Newark	4,136,977 45	542,212 77	249,087 37	371,778 44	38,607,396 20
Mutual Life	New York		1,262,418 54	993,463 91		103,583,301 49
New England Mutual Life	Boston	1,134,915 97	195,424 76	135,725 75	18,402 72	17,092,152 76
New York Life	New York	440,067 12	448,275 15	1,068,511 35	12,232 61	58,941,739 43
Northwestern Mutual Life	Milwaukee	1,266,687 91	305,454 70	334,611 14		22,497,772 84
Travelers'	Hartford	15,311 50	98,489 03	140,434 15		7,826,456 83
Union Mutual Life	Portland, Maine	737,590 00	216,849 38	94,073 94	10,112 22	6,311,401 66
United States Life	New York	122,931 32	60,546 79	114,790 35		5,167,166 59
Washington Life	New York		71,408 21	185,262 76	103,982 37	7,273,649 85
Totals		$14,014,604 67	$5,317,502 64	$5,149,750 42	$1,257,085 32	$433,926,326 37

TABLE NO. 43.

Showing the various items composing the Liabilities, Capital not included, of Life Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Location.	Losses Adjusted and in process of adjustment.	Losses Resisted.	Net Value of outstanding Policies (American Table), Interest 4½ per ct.	Unpaid Dividends due Policy Holders.	All other Liabilities.	Total Liabilities.	Surplus, as regards Policy Holders.
Pacific Mutual Life	San Francisco	$26,600 00		$1,074,174 00		$945 00	$1,101,719 00	$139,517 72
Ætna Life	Hartford	416,417 00	$33,500 00	22,789,740 00	$59,412 37	3,133 25	23,302,202 62	6,380,723 23
Brooklyn Life	New York	37,124 00	5,000 00	1,280,621 00		3,578 66	1,326,323 66	235,836 58
Connecticut Mutual Life	Hartford	302,555 75	12,000 00	48,418,419 00	112,156 62	389,242 97	49,234,374 34	4,192,337 97
Equitable Life	New York	185,080 81		43,754,881 00	84,355 00	72,157 00	44,096,473 81	13,452,241 87
Germania Life	New York	105,016 93	23,753 34	9,256,901 84	42,180 74	29,818 94	9,457,671 79	1,400,146 99
Hartford Life and Annuity	Hartford	1,621 00		531,005 00	347 22	380,746 45	913,719 67	345,946 77
Manhattan Life	New York	220,646 00		8,403,550 00	75,182 07	53,000 00	8,752,378 07	2,293,674 63
Mutual Benefit Life	Newark	183,953 77	49,400 00	32,776,134 00	176,305 40	8,010 53	33,193,803 70	5,413,592 50
Mutual Life	New York	862,387 00	138,578 00	90,469,286 00		58,587 36	91,528,838 36	12,054,463 13
New England Mutual Life	Boston	92,042 00		14,382,549 00	97,143 92	8,769 34	14,580,504 26	2,511,648 50
New York Life	New York	631,481 39	35,000 00	48,348,616 00		30,068 58	49,045,165 97	9,896,573 46
Northwestern Mutual Life	Milwaukee	191,519 56	78,500 00	17,249,527 00	5,000 00	106,567 59	17,631,114 15	4,866,658 69
Travelers'	Hartford	171,677 33	62,900 00	5,210,594 36		10,000 00	5,455,171 69	2,371,285 14
Union Mutual Life	Portland, Me.	85,012 47	33,564 18	5,385,565 00	7,780 30	81,245 55	5,593,167 50	728,834 17
United States Life	New York	12,950 00	10,000 00	4,426,459 00		9,027 75	4,458,436 75	708,729 84
Washington Life	New York	85,995 18	14,411 99	6,367,409 00		6,325 44	6,474,141 61	799,508 24
Totals		$3,216,080 19	$496,607 51	$360,125,431 20	$659,863 64	$1,251,224 41	$366,145,206 95	$67,791,719 43

TABLE NO. 44.

Showing the various items composing the Incomes of Life Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Location.	Premiums.	Interest.	Rents.	All other Sources.	Total Income.
Pacific Mutual Life	San Francisco	$326,195 87	$64,649 97	$1,294 35	$45 00	$392,185 19
Ætna Life	Hartford	2,688,319 69	1,500,828 55	----------	101,079 74	4,290,227 98
Brooklyn Life	New York	188,970 72	65,014 68	18,500 77	3,664 53	276,150 70
Connecticut Mutual Life	Hartford	4,707,437 42	2,257,767 83	519,461 74	17,347 91	7,502,014 90
Equitable Life	New York	12,031,330 22	2,500,691 03	471,458 80	----------	15,003,480 05
Germania Life	New York	1,561,660 40	469,342 91	55,716 96	704 48	2,087,424 75
Hartford Life and Annuity	Hartford	28,257 89	40,988 44	----------	533,925 97	603,172 30
Manhattan Life	New York	1,035,624 31	495,864 34	53,536 83	----------	1,585,025 48
Mutual Benefit Life	Newark	4,347,965 50	1,723,316 84	52,202 50	3,698 36	6,127,183 20
Mutual Life	New York	13,850,258 43	4,990,836 06	254,223 92	----------	19,095,318 41
New England Mutual Life	Boston	2,003,657 48	763,596 52	60,828 94	38,563 65	2,866,646 59
New York Life	New York	10,959,362 84	2,747,920 74	125,468 28	----------	13,832,751 86
Northwestern Mutual Life	Milwaukee	3,376,776 07	1,239,661 09	35,908 91	3,535 58	4,655,881 65
Travelers'	Hartford	2,827,708 47	418,178 49	----------	11,007 54	3,256,894 50
Union Mutual Life	Portland, Maine	718,179 38	216,572 53	50,871 21	----------	985,623 12
United States Life	New York	656,358 82	254,256 95	2,649 96	9,927 46	923,193 19
Washington Life	New York	1,434,332 34	330,762 97	10,074 73	163 75	1,775,333 79
Totals		$62,742,395 85	$20,080,249 94	$1,712 197 90	$723,663 97	$85,258,507 66

TABLE NO. 45.

Showing the various items composing the Expenditures of Life Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Location.	Losses and Matured Endowments.	Surrendered Policies.	Premium Notes Voided by Lapse of Policies.	Dividends to Policy Holders.	Dividends to Stockholders.
Pacific Mutual Life	San Francisco	$154,001 34	$59,682 00		$29,153 21	$9,055 00
Ætna Life	Hartford	2,117,626 56	256,163 91	$56,923 00	530,015 00	100,000 00
Brooklyn Life	New York	137,211 42	27,935 11	1,271 32	14,924 69	10,000 00
Connecticut Mutual Life	Hartford	3,542,223 18	732,624 49	83,850 68	1,153,608 28	
Equitable Life	New York	4,168,391 15	1,086,228 76		1,850,144 93	7,000 00
Germania Life	New York	924,016 00	126,062 24		203,693 88	24,000 00
Hartford Life and Annuity	Hartford	31,805 00	11,542 13		15,729 17	20,000 00
Manhattan Life	New York	656,285 14	166,968 66	15,940 60	234,520 64	40,000 00
Mutual Benefit Life	Newark	2,370,474 07	675,247 53		1,061,507 20	
Mutual Life	New York	7,717,275 82	3,037,696 17		3,141,164 12	
New England Mutual Life	Boston	1,388,947 00	192,809 50	59,619 33	535,525 71	
New York Life	New York	3,130,984 29	941,129 76	20,741 57	1,790,081 00	
Northwestern Mutual Life	Milwaukee	1,474,667 72	264,432 85	19,733 43	727,134 74	
Travelers'	Hartford	1,249,061 56	50,460 75			96,000 00
Union Mutual Life	Portland, Maine	520,651 69	75,392 78	8,795 10	64,038 57	
United States Life	New York	476,958 24	100,810 45		58,254 44	30,800 00
Washington Life	New York	596,865 00	313,458 46		234,869 00	8,820 00
Totals		$30,657,445 18	$8,118,645 55	$266,875 03	$11,644,364 58	$345,675 00

TABLE No. 45—Continued.

NAME.	Location.	Commissions.	Salaries.	Medical Examiners.	All other Payments.	Total Expenditures.
Pacific Mutual Life	San Francisco	$25,068 87	$28,749 73	$1,601 25	$23,297 11	$330,608 51
Ætna Life	Hartford	244,825 54	105,261 89	14,621 62	140,701 39	3,566,138 91
Brooklyn Life	New York	14,982 45	22,674 06	5,485 42	39,007 03	273,491 50
Connecticut Mutual Life	Hartford	274,553 23	112,525 93	13,860 00	586,599 94	6,499,845 73
Equitable Life	New York	924,695 09	342,060 87	111,611 22	1,407,877 10	9,898,009 12
Germania Life	New York	178,685 20	111,897 09	14,054 09	72,332 06	1,654,740 56
Hartford Life and Annuity	Hartford	93,441 08	34,170 45	8,579 82	296,725 87	511,993 52
Manhattan Life	New York	112,422 61	71,696 99	9,463 50	108,682 94	1,415,981 08
Mutual Benefit Life	Newark	393,777 35	113,054 00	30,181 30	224,399 71	4,868,641 16
Mutual Life	New York	907,846 19	394,052 66	89,293 40	1,770,185 83	17,057,514 19
New England Mutual Life	Boston	141,336 53	82,746 82	10,158 90	171,607 21	2,582,751 00
New York Life	New York	1,359,499 05	348,076 06	113,241 68	2,022,866 18	9,726,619 59
Northwestern Mutual Life	Milwaukee	380,110 57	139,257 27	26,326 02	208,047 69	3,239,710 29
Travelers'	Hartford	621,606 95	246,730 40	23,429 01	278,785 64	2,566,074 31
Union Mutual Life	Portland, Maine	152,612 91	43,905 73	10,370 38	96,588 76	972,355 92
United States Life	New York	90,875 36	107,646 68	11,363 70	81,573 38	958,282 25
Washington Life	New York	81,103 90	91,587 25	13,057 25	139,604 21	1,479,365 07
Totals		$5,997,442 88	$2,396,093 88	$506,698 56	$7,668,882 05	$67,602,122 71

TABLE NO. 46.

Showing the number and amount of Policies, including additions, in force at the end of the previous year, and an exhibit of the Policies issued, and of those which have ceased to be in force during the year, and those in force at the end of the year, of Life Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Location.	POLICIES IN FORCE DECEMBER 31, 1883.		POLICIES ISSUED AND REVIVED DURING THE YEAR.		TOTAL.	
		Number.	Amount Insured.	Number.	Amount Insured.	Number.	Amount Insured.
Pacific Mutual Life	San Francisco	2,954	$7,792,933 00	350	$971,380 00	3,304	$8,764,313 00
Ætna Life	Hartford	60,354	85,040,335 00	4,497	8,094,226 00	64,851	93,134,561 00
Brooklyn Life	New York	4,093	5,702,314 00	1,524	880,122 00	5,617	6,582,436 00
Connecticut Mutual Life	Hartford	63,595	155,433,409 00	3,213	7,283,710 00	66,808	162,717,119 00
Equitable Life	New York	75,196	275,160,588 00	20,256	84,877,057 00	95,452	360,037,645 00
Germania Life	New York	21,753	38,145,097 00	2,501	4,244,453 00	24,254	42,389,550 00
Hartford Life and Annuity	Hartford	----	----	----	----	----	----
Manhattan Life	New York	11,666	33,023,205 00	1,551	4,440,814 00	13,217	37,464,019 00
Mutual Benefit Life	Newark	49,178	133,298,768 00	5,278	13,678,384 00	54,456	146,977,152 00
Mutual Life	New York	110,990	342,946,032 00	11,194	34,675,989 00	122,184	377,622,021 00
New England Mutual Life	Boston	20,827	61,694,591 00	2,206	6,394,323 00	23,033	68,088,914 00
New York Life	New York	69,227	198,746,043 00	17,463	61,484,550 00	86,690	260,230,593 00
Northwestern Mutual Life	Milwaukee	43,801	92,083,093 00	7,012	21,057,952 00	50,813	113,141,045 00
Travelers'	Hartford	14,378	25,005,604 00	2,478	5,643,515 00	16,856	30,649,119 00
Union Mutual Life	Portland, Maine	14,363	25,150,730 00	2,012	3,889,507 00	16,375	29,040,237 00
United States Life	New York	9,995	19,193,579 00	1,694	4,125,975 00	11,689	23,319,554 00
Washington Life	New York	14,425	31,994,723 00	2,917	6,898,500 00	17,342	38,893,223 00
Totals		586,795	$1,530,411,044 00	86,146	$268,640,457 00	672,941	$1,799,051,501 00

TABLE No. 46—Continued.

NAME.	Location.	POLICIES TERMINATED.		NET POLICIES IN FORCE DECEMBER 31, 1884.	
		Number.	Amount Insured.	Number.	Amount Insured.
Pacific Mutual Life	San Francisco	301	$881,158 00	3,003	$7,883,155 00
Ætna Life	Hartford	4,565	8,470,970 00	60,286	84,663,591 00
Brooklyn Life	New York	1,245	866,149 00	4,372	5,716,287 00
Connecticut Mutual Life	Hartford	3,874	10,486,434 00	62,934	152,230,685 00
Equitable Life	New York	11,753	50,628,474 00	83,699	309,409,171 00
Germania Life	New York	1,754	3,435,209 00	22,500	38,954,341 00
Hartford Life and Annuity	Hartford	--------	--------	--------	--------
Manhattan Life	New York	1,164	3,466,889 00	12,053	33,997,130 00
Mutual Benefit Life	Newark	4,095	11,133,609 00	50,361	135,843,543 00
Mutual Life	New York	7,380	25,832,736 00	114,804	351,789,286 00
New England Mutual Life	Boston	1,754	5,460,118 00	21,279	62,628,796 00
New York Life	New York	8,643	30,848,007 00	78,047	229,382,586 00
Northwestern Mutual Life	Milwaukee	4,865	14,347,063 00	45,948	98,793,982 00
Travelers'	Hartford	1,516	3,320,305 00	15,340	27,328,814 00
Union Mutual Life	Portland, Maine	2,543	4,757,492 00	13,832	24,282,745 00
United States Life	New York	1,557	3,549,690 00	10,132	19,769,864 00
Washington Life	New York	2,299	5,558,551 00	15,043	33,334,672 00
Totals		59,308	$183,042,854 00	613,633	$1,616,008,648 00

TABLE No. 47.

Showing the number and amount of Policies which have ceased to be in force during the year, with the mode of their termination, of Life Insurance Companies doing business in California on the thirty-first day of December, 1884.

NAME.	Location.	BY DEATH.		BY EXPIRATION.		BY SURRENDER.	
		Number.	Amount Insured.	Number.	Amount Insured.	Number.	Amount Insured.
Pacific Mutual Life	San Francisco	43	$99,574 00	37	$61,939 00	41	$151,500 00
Ætna Life	Hartford	798	1,363,066 00	1,093	1,399,286 00	806	1,561,836 00
Brooklyn Life	New York	37	73,530 00	31	71,610 00	109	190,990 00
Connecticut Mutual Life	Hartford	1,120	2,761,259 00	411	863,488 00	1,159	3,654,269 00
Equitable Life	New York	936	3,674,759 00	209	699,588 00	1,209	6,525,735 00
Germania Life	New York	327	606,772 00	165	294,443 00	444	835,585 00
Hartford Life and Annuity	Hartford						
Manhattan Life	New York	214	606,047 00	41	49,554 00	158	443,959 00
Mutual Benefit Life	Newark	708	2,130,255 00	428	1,013,039 00	1,651	4,763,865 00
Mutual Life	New York	1,432	5,579,640 00	940	3,460,458 00	1,245	5,581,068 00
New England Mutual Life	Boston	278	973,816 00	311	755,439 00	259	853,493 00
New York Life	New York	769	2,340,995 00	619	913,300 00	1,004	5,689,536 00
Northwestern Mutual Life	Milwaukee	436	904,439 00	432	3,345,471 00	617	1,292,679 00
Travelers'	Hartford	137	228,814 00	66	75,057 00	79	116,108 00
Union Mutual Life	Portland, Maine	175	352,384 00	491	843,266 00	165	289,152 00
United States Life	New York	160	316,443 00	65	171,283 00	304	529,784 00
Washington Life	New York	173	433,170 00	90	157,724 00	351	1,151,984 00
Totals		7,743	$22,444,963 00	5,429	$14,174,945 00	9,601	$33,631,543 00

TABLE No. 47—Continued.

NAME.	Location.	BY LAPSE.		BY CHANGE AND DECREASE AND NOT TAKEN.	
		Number.	Amount Insured.	Number.	Amount Insured.
Pacific Mutual Life	San Francisco	157	$498,145 00	23	$70,000 00
Ætna Life	Hartford	1,112	2,658,317 00	756	1,488,465 00
Brooklyn Life	New York	981	421,722 00	87	108,297 00
Connecticut Mutual Life	Hartford	922	2,513,418 00	262	694,000 00
Equitable Life	New York	5,970	23,068,829 00	3,429	16,659,563 00
Germania Life	New York	529	1,044,535 00	289	653,874 00
Hartford Life and Annuity	Hartford				
Manhattan Life	New York	351	1,009,880 00	400	1,357,449 00
Mutual Benefit Life	Newark	849	2,108,700 00	459	1,117,750 00
Mutual Life	New York	2,505	7,614,244 00	1,258	3,577,326 00
New England Mutual Life	Boston	661	2,086,067 00	245	791,303 00
New York Life	New York	3,754	11,924,360 00	2,497	9,652,934 00
Northwestern Mutual Life	Milwaukee	2,759	6,417,161 00	621	2,387,313 00
Travelers'	Hartford	815	1,775,150 00	419	1,125,176 00
Union Mutual Life	Portland, Maine	877	1,545,884 00	835	1,726,805 00
United States Life	New York	788	1,840,708 00	240	691,472 00
Washington Life	New York	1,145	2,431,443 00	540	1,384,230 00
Totals		24,175	$68,958,563 00	12,360	$43,485,957 00

TABLE No. 48.

Statement of Office Collections, showing amounts collected from different Companies for the year ending on the thirty-first day of December, 1884.

NAME.	Amount.	NAME.	Amount.
California	$20 00	Amount brought forward	$9,401 69
Commercial	20 00	Irving	65 00
Fireman's Fund	20 00	Lancashire	20 00
Home Mutual	21 00	Lion Fire	20 00
Oakland Home	20 00	Liverpool and London and Globe	20 00
State Investment	20 00	London	20 00
Sun	26 00	London and Lancashire	20 00
Union	20 00	London and Northwestern	30 00
Western Fire and Marine	20 00	London and Provincial Fire	20 00
Ætna	20 00	London and Provincial Marine	20 00
Agricultural	367 61	Lorillard	80 48
Allemannia	249 02	Magdeburg General	20 00
Alliance Marine	20 00	Manchester Fire	20 00
Amazon	30 00	Mannheim	65 00
American	178 40	Man On	20 00
American Central	60 00	Manufacturers' Fire and Marine	1,408 61
American Fire	326 05	Maritime	30 00
Baloise	20 00	Mechanics' Fire	126 93
Boatman's Fire and Marine	231 07	Merchants'	440 57
Boston Marine	20 00	National	65 00
British America	20 00	National Fire, of New York	116 00
British and Foreign Marine	20 00	National Fire, of Hartford	65 00
Buffalo German	140 10	National Fire and Marine	20 00
Canton	20 00	National Marine	20 00
China Traders'	20 00	New Hampshire Fire	30 00
Chinese	20 00	New Orleans	20 00
Citizens', of St. Louis	60 00	New York Bowery Fire	65 00
Citizens', of New York	20 00	New Zealand	20 00
City of London Fire	20 00	Niagara Fire	412 00
Commercial Fire	372 60	North American	65 00
Commercial Union	30 00	North British and Mercantile	20 00
Connecticut Fire	30 00	North China	60 00
Continental	522 62	Northern	20 00
Danube	20 00	North German Fire	20 00
Eliot	289 66	Northwestern National	30 00
Farragut Fire	76 53	Norwich Union	20 00
Fire Association	794 36	On Tai	20 00
Fire Insurance Association	20 00	Oregon Fire and Marine	65 00
Firemen's	30 00	Orient	20 00
Fonciere	20 00	Pacific Fire	248 64
German	20 00	Pennsylvania	244 57
German-American	390 40	Pennsylvania Fire	767 69
German Fire	592 83	People's	65 00
Germania, of New York	489 78	Phenix	885 84
Germania, of New Orleans	65 00	Phœnix, of Hartford	20 00
Glen's Falls	285 50	Phœnix, of London	20 00
Girard Fire and Marine	465 94	Prescott	138 34
Globe Marine	20 00	Providence-Washington	380 39
Great Western	20 00	Prussian National	42 00
Guardian	20 00	Queen	20 00
Hamburg Bremen	20 00	Reliance Marine	20 00
Hamburg Magdeburg	20 00	Royal	20 00
Hanover	479 78	Scottish Union and National	30 00
Hartford	20 00	Sea	20 00
Helvetia Marine	20 00	Security	30 00
Helvetia Swiss Fire	20 00	St. Paul	287 87
Home	617 75	Shoe and Leather	506 75
Howard	58 32	South British Fire and Marine	20 00
Imperial	20 00	Springfield Fire and Marine	721 79
Insurance Co. of North America	1,192 57	Standard Marine	20 00
Ins. Co. of the State of Penn.	288 80	Star Fire	274 05
International Marine	20 00	Straits	65 00
Amount carried forward	$9,401 69	Amount carried forward	$17,869 21

TABLE No. 48—Continued.

NAME.	Amount.	NAME.	Amount.
Amount brought forward	$17,869 21	Amount brought forward	$19,613 74
Svea Fire and Life	65 00	Germania Life	20 00
Switzerland Marine	20 00	Hartford Life and Annuity	65 00
Teutonia	20 00	Manhattan Life	20 00
Thames and Mersey	20 00	Mutual Benefit Life	20 00
The Marine	20 00	Mutual Life	21 00
Traders'	30 00	New England Mutual Life	20 00
Transatlantic Fire	20 00	New York Life	21 50
Transatlantic Marine	20 00	Northwestern Mutual Life	30 00
Union, of Philadelphia	588 75	Penn Mutual Life	20 00
Union, of Hong Kong	20 00	Travelers'	20 00
Union Fire and Marine	21 00	Union Mutual Life	192 27
Union Marine	30 00	United States Life	20 00
United Fire Reinsurance	65 00	Washington Life	20 00
United States Fire	70 94	Charter Oak Life	20 00
Universal Marine	20 00	National Life	25 00
Washington Fire and Marine	301 16	Phœnix Mutual Life	20 00
Western	20 00	Accident Insurance Company of North America	40 00
Williamsburg City Fire	177 68		
Yangtsze	60 00	American Steam Boiler	65 00
Pacific Mutual Life	45 00	American Surety	65 00
Ætna Life	40 00	Fidelity and Casualty	20 00
Brooklyn Life	20 00	Hartford Steam Boiler	65 00
Connecticut Mutual Life	30 00	Metropolitan Plate Glass	30 00
Equitable Life	20 00		
		Total	$20,453 51
Amount carried forward	$19,613 74		

I hereby certify the foregoing to be a full and correct statement of the receipts of the Insurance Department of the State of California for the year 1884.

GEO. A. KNIGHT,
Insurance Commissioner.

Subscribed and sworn to before me, this twenty-third day of July, 1885.

[SEAL.]

WM. S. CAMPBELL,
Notary Public.

EIGHTEENTH ANNUAL REPORT

OF THE

INSURANCE COMMISSIONER

FOR THE

STATE OF CALIFORNIA.

YEAR ENDING DECEMBER 31, 1885.

SACRAMENTO:
STATE OFFICE.......JAMES J. AYERS, SUPT. STATE PRINTING.
1886.

PRELIMINARY.

Eighteenth Annual Report of the California Insurance Commissioner.

Office of Insurance Commissioner,
San Francisco, January 27, 1886.

To his Excellency George Stoneman, *Governor of the State of California:*

I have the honor to submit herewith the annual preliminary report of this department, giving the amount of fire, marine, and life insurance business transacted in the State during the year ending December 31, 1885, together with the names and locations of the respective companies:

FIRE INSURANCE.

Amount written	$282,301.595 00
Premiums on same	4,540,883 39
Losses paid	2,033,257 05
Ratio of losses to premiums	44.8

MARINE INSURANCE.

Amount written	$103,094,139 00
Premiums on same	1,395,993 67
Losses paid	855,630 41
Ratio of losses to premiums	61.3

TOTAL FIRE AND MARINE.

Amount written	$385,395,734 00
Premiums on same	5,936,877 06
Losses paid	2,888,887 46

Apportioned as follows:

TO COMPANIES OF THIS STATE—FIRE INSURANCE.

Amount written	$69,094,847 00
Premiums on same	1,097,300 68
Losses paid	386,030 76

MARINE INSURANCE.

Amount written	$18,772,387 00
Premiums on same	371,487 01
Losses paid	217,284 54

TO COMPANIES OF OTHER STATES—FIRE INSURANCE.

Amount written	$92,003,161 00
Premiums on same	1,560,610 33
Losses paid	784,450 85

MARINE INSURANCE.

Amount written	$5,997,624 00
Premiums on same	136,650 64
Losses paid	102,104 16

TO COMPANIES OF FOREIGN COUNTRIES—FIRE INSURANCE.

Amount written	$121,203,587 00
Premiums on same	1,882,972 38
Losses paid	862,775 44

MARINE INSURANCE.

Amount written	$78,324,128 00
Premiums on same	887,856 02
Losses paid	536,241 71

Since the date of the last annual report from this office, the following named companies have been admitted to transact insurance business in this State:

Southern California	Los Angeles.
Glasgow and London	Glasgow.
Union Central Life	Cincinnati.
Lloyd's Plate Glass	New York.
Westchester Fire	New York.
Sun Mutual	New Orleans.
Concordia Fire	Milwaukee.
Merchants'	New York.
Franklin Fire	Philadelphia.
Firemen's	Newark.
Caledonian	Edinburgh.
Pacific Surety Company	San Francisco.
Clinton Fire	New York.
Atlas	London.
Universal Accident Indemnity	San Francisco.
Anglo-Nevada	San Francisco.
Boyleston Mutual	Boston.

The following named companies have ceased to do business in the State:

Germania	New Orleans.
Mechanics' Fire	Brooklyn.
New York Bowery Fire	New York.
Glasgow and London	Glasgow.
Universal Accident Indemnity	San Francisco.

Very respectfully, your obedient servant,

GEORGE A. KNIGHT,
Insurance Commissioner.

TABLE No. 1.

Showing the business of California Insurance Companies for the year 1885—California business.

NAME.	Location.	FIRE.			
		Risks Written.	Premiums on same.	Losses Paid.	Ratio of Losses to Premiums.
Anglo-Nevada	San Francisco	$1,124,968 00	$14,186 22	None.	
California	San Francisco	5,672,851 00	83,174 62	$33,616 21	40.4
Commercial	San Francisco	4,569,441 00	71,738 94	33,914 41	47.3
Fireman's Fund	San Francisco	9,814,748 00	150,165 62	44,206 11	29.4
Home Mutual	San Francisco	12,765,842 00	214,677 15	89,489 25	41.7
Oakland Home	Oakland	5,896,541 00	90,369 76	28,384 10	31.4
Southern California	Los Angeles	4,615,813 00	83,675 57	9,469 94	11.3
State Investment	San Francisco	7,258,735 00	113,238 60	49,721 40	43.9
Sun	San Francisco	3,638,516 00	58,020 74	23,465 60	40.4
Union	San Francisco	6,432,476 00	88,670 45	26,088 16	29.4
Western Fire and Marine	San Francisco	7,304,916 00	129,383 01	47,675 58	36.8
Totals		$69,094,347 00	$1,097,300 68	$386,030 76	35.2

TABLE No. 1—Continued.

Name.	Location.	Marine.			
		Marine and Inland.		Marine Time.	
		Risks Written.	Premiums on same.	Risks Written.	Premiums on same.
Anglo-Nevada	San Francisco	$432,960 00	$3,825 77		
California	San Francisco	2,318,355 00	23,052 08	$815,672 00	$48,521 86
Commercial	San Francisco	532,921 00	6,826 95	231,413 00	19,556 78
Fireman's Fund	San Francisco	3,690,639 00	52,002 08	923,443 00	73,372 49
Home Mutual	San Francisco				
Oakland Home	Oakland				
Southern California	Los Angeles				
State Investment	San Francisco				
Sun	San Francisco	1,416,084 00	18,107 98	523,446 00	38,095 17
Union	San Francisco	7,441,326 00	51,519 62	446,128 00	36,606 23
Western Fire and Marine	San Francisco				
Totals		$15,832,285 00	$155,334 48	$2,940,102 00	$216,152 53

Name.	Location.	Marine.			
		Total Risks Written.	Total Premiums on same.	Losses Paid.	Ratio of Losses to Premiums.
Anglo-Nevada	San Francisco	$432,960 00	$3,825 77	None.	
California	San Francisco	3,134,027 00	71,573 91	$27,036 29	37.8
Commercial	San Francisco	764,334 00	26,383 73	15,950 13	60.4
Fireman's Fund	San Francisco	4,614,082 00	125,374 57	70,465 35	56.2
Home Mutual	San Francisco				
Oakland Home	Oakland				
Southern California	Los Angeles				
State Investment	San Francisco				
Sun	San Francisco	1,939,530 00	56,203 15	34,900 87	62.1
Union	San Francisco	7,887,454 00	88,125 85	68,901 90	78.2
Western Fire and Marine	San Francisco				
Totals		$18,772,387 00	$371,487 01	$217,284 54	58.5

TABLE No. 2.

Showing the Amount and Description of Risks in Force December 31, 1885, of California Insurance Companies—California business.

NAME.	Location.	FIRE.		MARINE AND INLAND.	
		Risks.	Premiums.	Risks.	Premiums.
Anglo-Nevada	San Francisco	$1,124,968 00	$14,186 22	$207,505 00	$3,585 59
California	San Francisco	7,746,313 00	111,884 74	217,470 00	4,022 82
Commercial	San Francisco	4,112,497 00	69,158 99	54,866 00	1,031 26
Fireman's Fund	San Francisco	11,682,139 00	175,066 97	518,032 00	11,336 50
Home Mutual	San Francisco	19,522,533 00	301,722 83		
Oakland Home	Oakland	7,264,227 00	109,631 27		
Southern California	Los Angeles	4,188,787 00	75,135 57		
State Investment	San Francisco	7,444,010 00	116,772 25		
Sun	San Francisco	3,516,817 00	57,019 07	124,717 00	2,812 09
Union	San Francisco	7,862,325 00	95,134 15	432,020 00	7,408 65
Western Fire and Marine	San Francisco	7,455,916 00	131,543 15		
Totals		$81,920,532 00	$1,257,255 21	$1,554,610 00	$30,196 91

NAME.	Location.	MARINE TIME.		TOTALS.	
		Risks.	Premiums.	Risks.	Premiums.
Anglo-Nevada	San Francisco			$1,322,473 00	$17,771 81
California	San Francisco	$651,968 00	$48,611 75	8,615,751 00	164,519 31
Commercial	San Francisco	224,675 00	19,330 50	4,392,038 00	90,523 75
Fireman's Fund	San Francisco	784,993 00	67,584 99	12,895,164 00	253,988 46
Home Mutual	San Francisco			19,522,533 00	301,722 83
Oakland Home	Oakland			7,264,227 00	109,631 27
Southern California	Los Angeles			4,188,787 00	75,135 57
State Investment	San Francisco			7,444,010 00	116,772 25
Sun	San Francisco	487,080 00	39,016 37	4,128,614 00	98,847 53
Union	San Francisco	376,616 00	29,840 05	8,670,961 00	132,382 85
Western Fire and Marine	San Francisco			7,455,916 00	131,543 15
Totals		$2,525,332 00	$204,383 66	$85,900,474 00	$1,492,838 78

TABLE NO. 3.

Showing the Fire business of Companies of other States, for the year 1885—California business.

NAME.	Location.	Amount Written.	Premiums on same.	Losses Paid.	Ratio of Losses to Premiums.
Ætna	Hartford	$7,933,157 00	$124,939 92	$45,281 03	36.3
Agricultural	Watertown, New York	2,922,243 00	34,126 93	19,519 93	57.2
Allemannia	Pittsburgh	377,961 00	8,008 28	8,278 38	103.4
Amazon	Cincinnati	567,521 00	11,743 83	10,996 66	93.6
American	Newark	1,339,001 00	20,213 27	8,805 60	43.5
American Central	St. Louis	1,875,272 00	29,568 34	21,544 70	72.9
American Fire	Philadelphia	1,752,343 00	39,418 02	20,317 90	51.5
Boatman's Fire and Marine	Pittsburgh	303,982 00	4,888 37	7,670 57	157.1
Citizens'	St. Louis	497,768 00	11,431 57	8,822 27	77.2
Citizens'	New York	1,531,211 00	17,841 78	2,219 24	12.4
Clinton Fire	New York	393,037 00	7,860 75	723 00	9.2
Concordia Fire	Milwaukee	580,865 00	10,455 80	3,648 50	34.9
Connecticut Fire	Hartford	2,792,955 00	48,362 42	20,698 93	42.8
Continental	New York	1,999,977 00	35,763 41	17,263 07	48.3
Eliot	Boston	360,840 00	6,857 44	2,267 30	33.1
Farragut Fire	New York	82,470 00	1,369 66	511 84	37.4
Fire Association of Philadelphia	Philadelphia	1,443,659 00	24,319 58	22,836 32	93.9
Firemen's	Baltimore	535,102 00	10,611 38	4,583 81	43.2
Firemen's	Newark	575,539 00	10,830 23	2,040 00	18.8
Franklin Fire	Philadelphia	538,922 00	6,729 00	2,487 76	36.9
German	Freeport, Illinois	1,419,739 00	25,553 10	11,574 00	45.3
German-American	New York	3,466,704 00	58,106 50	40,509 89	69.7
German Fire	Pittsburgh	445,237 00	8,904 60	5,575 00	62.2
Germania Fire	New York	1,631,050 00	25,150 50	7,339 00	29.2
Girard	Philadelphia	522,090 00	8,913 11	4,802 34	53.9
Glen's Falls	Glen's Falls, New York	1,300,346 00	18,855 01	3,235 60	17.2
Hanover Fire	New York	3,062,423 00	35,631 79	4,540 36	12.7
Hartford	Hartford	8,285,600 00	115,975 63	41,840 18	36.1
Home	New York	6,209,148 00	87,951 40	53,261 17	60.6
Howard	New York	790,649 00	17,644 87	7,751 14	43.9
Insurance Company of North America	Philadelphia	2,519,191 00	42,666 45	24,517 33	57.5
Insurance Company of the State of Pennsylvania	Philadelphia	370,102 00	6,649 63	487 80	7.3
Mechanics' Fire	Brooklyn	27,780 00	715 53	11 92	1.7
Merchants'	Newark	1,058,751 00	15,881 25	7,436 62	46.9
Merchants'	New York	408,460 00	6,126 90	1,100 00	17.9
National Fire	New York	537,686 00	11,127 97	8,963 33	80.5

National Fire	Hartford	1,329,808 00	18,767 71	10,850 26	57.8
New Hampshire Fire	Manchester, New Hampshire	479,611 00	9,342 25	8,932 70	95.6
New Orleans	New Orleans	1,433,584 00	40,338 17	34,685 23	85.9
Niagara	New York	1,348,830 00	25,907 04	15,763 56	60.8
North American	Boston	360,840 00	6,854 44	2,267 30	33.1
Northwestern National	Milwaukee	634,320 00	10,410 17	6,115 90	58.7
Oregon Fire and Marine	Portland, Oregon	491,126 00	9,822 50	3,380 00	34.4
Orient	Hartford	1,144,918 00	22,913 90	5,369 89	23.4
Pacific Fire	New York	877,390 00	16,981 86	12,344 85	72.7
Pennsylvania	Pittsburgh	184,715 00	5,282 47	6,952 19	131.6
Pennsylvania Fire	Philadelphia	1,212,164 00	23,989 60	18,615 56	77.6
People's	Pittsburgh	93,265 00	3,589 77	3,258 22	90.8
Phenix	Brooklyn	6,391,111 00	154,974 71	68,958 11	44.5
Phœnix	Hartford	5,951,789 00	85,297 25	52,761 17	61.9
Prescott	Boston	360,840 00	6,857 44	2,267 30	33.1
Providence-Washington	Providence, Rhode Island	943,244 00	18,949 88	7,904 72	41.7
Saint Paul	St. Paul, Minnesota	669,480 00	12,749 47	5,522 51	43.3
Security	New Haven	192,962 00	4,596 69	2,546 21	55.4
Springfield Fire and Marine	Springfield, Massachusetts	2,637,687 00	44,840 17	18,792 60	41.9
Sun Mutual	New Orleans	198,099 00	4,220 60	None.	
Teutonia	New Orleans	369,438 00	10,369 76	14,450 83	139.4
Traders'	Chicago	916,321 00	14,309 55	12,909 92	90.2
Union	Philadelphia	568,232 00	8,523 50	5,111 20	59.9
United States Fire	New York	154,929 00	1,424 47	7 00	.5
Washington Fire and Marine	Boston	1,342,108 00	26,092 70	5,169 38	19.9
Westchester Fire	New York	522,927 00	8,887 23	733 33	8.4
Williamsburg City Fire	Brooklyn	754,642 00	13,139 81	5,308 42	40.4
Totals		$92,003,161 00	$1,560,610 33	$784,450 85	50.3

TABLE No. 4.

Showing the Fire Risks in Force in California on December 31, 1885—Companies of other States.

NAME.	Location.	Risks.	Premiums.
Ætna	Hartford	$9,347,488 00	$148,667 57
Agricultural	Watertown, N. Y.	4,170,614 00	54,452 33
Allemannia	Pittsburgh	441,780 00	8,748 45
Amazon	Cincinnati	596,975 00	12,280 31
American	Newark	1,138,900 00	18,766 36
American Central	St. Louis	2,213,681 00	34,120 30
American Fire	Philadelphia	1,650,083 00	38,562 29
Boatman's Fire and Marine	Pittsburgh	315,498 00	6,215 66
Citizens'	St. Louis	618,554 00	11,961 42
Citizens'	New York	1,520,150 00	20,556 80
Clinton Fire	New York	385,546 00	7,655 60
Concordia Fire	Milwaukee	547,322 00	10,105 71
Connecticut Fire	Hartford	3,564,530 00	59,058 44
Continental	New York	2,458,565 00	40,111 17
Eliot	Boston	270,630 00	5,286 92
Farragut Fire	New York	89,975 00	1,348 70
Fire Association of Philadelphia	Philadelphia	1,773,792 00	29,743 43
Firemen's	Baltimore	594,913 00	10,730 35
Firemen's	Newark	538,763 00	10,246 17
Franklin Fire	Philadelphia	485,030 00	6,057 00
German	Freeport, Illinois	1,364,533 00	24,746 53
German-American	New York	3,929,772 00	63,319 19
German Fire	Pittsburgh	420,862 00	8,417 24
Germania Fire	New York	1,936,095 00	27,906 30
Girard	Philadelphia	876,270 00	12,313 68
Glen's Falls	Glen's Falls	1,430,380 00	19,792 01
Hanover Fire	New York	3,248,694 00	43,936 35
Hartford	Hartford	8,681,202 00	132,317 84
Home	New York	7,129,553 00	116,309 84
Howard	New York	872,426 00	19,437 52
Insurance Company of North America	Philadelphia	3,302,723 00	54,765 24
Insurance Co. of the State of Penn.	Philadelphia	398,889 00	7,914 03
Merchants'	Newark	1,096,364 00	16,031 17
Merchants'	New York	391,154 00	5,867 33
National Fire	New York	603,000 00	11,780 30
National Fire	Hartford	1,348,909 00	19,260 01
New Hampshire Fire	Manchester, N. H.	569,751 00	10,809 60
New Orleans	New Orleans	1,694,724 00	40,716 32
Niagara	New York	1,245,477 00	25,244 97
North American	Boston	270,630 00	5,286 92
Northwestern National	Milwaukee	726,042 00	12,968 05
Oregon Fire and Marine	Portland, Oregon	410,836 00	9,216 73
Orient	Hartford	999,612 00	21,004 80
Pacific Fire	New York	922,475 00	17,231 14
Pennsylvania	Pittsburgh	230,396 00	5,269 72
Pennsylvania Fire	Philadelphia	1,381,513 00	27,032 71
People's	Pittsburgh	133,989 00	3,797 30
Phenix	Brooklyn	12,810,644 00	364,756 99
Phœnix	Hartford	6,893,619 00	113,167 84
Prescott	Boston	270,630 00	5,286 92
Providence-Washington	Providence, R. I.	1,209,993 00	22,624 26
Saint Paul	St. Paul, Minn.	990,944 00	15,364 97
Security	New Haven	240,272 00	4,767 24
Springfield Fire and Marine	Springfield, Mass.	2,513,755 00	43,161 56
Sun Mutual	New Orleans	193,099 00	4,180 60
Teutonia	New Orleans	459,195 00	10,270 62
Traders'	Chicago	1,073,410 00	16,469 56
Union	Philadelphia	534,397 00	8,363 75
United States Fire	New York	94,394 00	1,087 68
Washington Fire and Marine	Boston	1,196,802 00	24,183 60
Westchester Fire	New York	517,797 00	8,876 20
Williamsburg City Fire	Brooklyn	565,982 00	9,647 08
Totals		$107,903,993 00	$1,949,576 69

TABLE No. 5.

Showing the business of Fire Companies of Foreign Countries for the year 1885—California business.

NAME.	Location.	Amount Written.	Premiums on same.	Losses Paid.	Ratio of Losses to Premiums.
Atlas	London	$886,811 00	$14,409 35	$551 33	3.9
British America	Toronto	1,183,175 00	22,427 70	18,504 22	82.5
Caledonian	Edinburgh	1,050,786 00	15,782 33	189 93	1.2
City of London Fire	London	1,891,103 00	30,485 57	17,299 24	56.7
Commercial Union	London	9,522,236 00	159,276 07	50,208 33	31.5
Fire Insurance Association	London	3,462,420 00	74,028 62	49,626 92	67.0
Guardian	London	4,912,221 00	74,713 06	34,217 29	45.8
Hamburg-Bremen	Hamburg	6,511,676 00	85,508 62	24,904 34	29.1
Hamburg-Magdeburg	Hamburg	2,729,570 00	41,636 45	25,517 45	61.3
Helvetia Swiss Fire	St. Gall, Switzerland	4,034,758 00	61,444 10	23,679 32	38.5
Imperial	London	2,723,357 00	36,989 12	21,304 00	57.6
Lancashire	Manchester	2,740,334 00	39,409 38	17,451 81	44.3
Lion Fire	London	3,037,230 00	57,217 88	27,112 64	47.4
Liverpool and London and Globe	Liverpool	16,472,438 00	213,491 11	89,337 07	41.4
London	London	2,723,357 00	36,989 12	21,304 00	57.6
London and Lancashire	Liverpool	4,694,441 00	78,947 95	36,261 84	45.9
London and Provincial Fire	London	1,428,763 00	22,420 25	6,642 55	29.6
Manchester Fire	Manchester	2,854,211 00	48,728 96	28,510 96	58.5
National	Dublin	2,147,312 00	32,032 22	10,249 54	31.9
National Fire and Marine	Dunedin, New Zealand	2,057,527 00	32,257 10	18,541 47	57.5
New Zealand	Auckland	4,121,723 00	66,064 36	24,120 84	36.5
North British and Mercantile	London	5,448,765 00	87,913 15	43,765 12	49.8
North German Fire	Hamburg	4,078,383 00	66,879 09	30,708 31	45.9
Northern	London	2,723,357 00	36,989 12	21,304 00	57.6
Norwich Union	Norwich, England	2,740,334 00	39,409 38	17,451 81	44.3
Phœnix	London	3,551,938 00	61,477 35	27,338 36	44.4
Prussian National	Stettin	2,987,441 00	43,317 00	14,660 15	33.8
Queen	Liverpool	2,723,357 00	36,989 12	21,304 00	57.6
Royal	Liverpool	2,740,334 00	39,409 38	17,451 81	44.3
Scottish Union and National	Edinburgh	3,201,060 00	44,253 07	31,650 97	71.5
South British Fire and Marine	Auckland	2,057,526 00	32,257 10	18,541 48	57.5
Svea	Gothenburg, Sweden	1,410,790 00	37,691 00	18,671 53	49.3
Transatlantic Fire	Hamburg	3,256,215 00	53,146 77	15,749 44	29.6

TABLE No. 5—Continued.

NAME.	Location.	Amount Written.	Premiums on same.	Losses Paid.	Ratio of Losses to Premiums.
Union Fire and Marine	Christchurch, New Zealand	$1,485,504 00	$28,699 03	$21,014 95	73.3
United Fire	Manchester	313,449 00	6,264 10	2,126 48	38.8
Western	Toronto	1,299,685 00	21,018 40	15,171 93	63.2
		$121,203,587 00	$1,882,972 38	$862,775 44	45.8

TABLE No. 6.

Showing Fire Risks in Force on December 31, 1885—Companies of Foreign Countries—California business.

NAME.	Location.	Risks.	Premiums.
Atlas	London	$869,911 00	$14,005 40
British America	Toronto	1,307,466 00	24,822 11
Caledonian	Edinburgh	1,009,209 00	15,416 51
City of London Fire	London	1,992,904 00	33,592 67
Commercial Union	London	8,799,516 00	148,107 50
Fire Insurance Association	London	4,638,577 00	84,118 08
Guardian	London	5,638,182 00	81,160 64
Hamburg-Bremen	Hamburg	5,302,891 00	85,320 47
Hamburg-Magdeburg	Hamburg	3,472,816 00	49,520 90
Helvetia Swiss Fire	St. Gall, Switzerland	4,606,136 00	67,963 26
Imperial	London	3,060,080 00	41,579 14
Lancashire	Manchester	3,342,231 00	48,516 16
Lion Fire	London	2,737,618 00	54,399 67
Liverpool and London and Globe	Liverpool	19,007,151 00	268,197 78
London	London	3,060,080 90	41,579 14
London and Lancashire	Liverpool	4,302,689 00	80,842 98
London and Provincial Fire	London	1,680,763 00	26,379 19
Manchester Fire	Manchester	2,662,093 00	49,107 45
National	Dublin	2,119,483 00	31,337 78
National Fire and Marine	Dunedin	2,252,588 00	33,702 18
New Zealand	Auckland	4,642,677 00	67,657 04
North British and Mercantile	London	6,827,614 00	105,941 55
North German Fire	Hamburg	4,641,768 00	75,669 92
Northern	London	3,060,080 00	41,579 14
Norwich Union	Norwich, England	3,342,231 00	48,516 16
Phœnix	London	4,230,242 00	72,224 63
Prussian National	Stettin	3,215,656 00	45,591 62
Queen	Liverpool	3,060,080 00	41,579 14
Royal	Liverpool	3,342,231 00	48,516 16
Scottish Union and National	Edinburgh	3,303,558 00	48,904 88
South British Fire and Marine	Auckland	2,252,588 00	33,702 17
Svea	Gothenburg, Sweden	1,446,681 00	38,421 75
Transatlantic Fire	Hamburg	3,378,531 00	62,195 65
Union Fire and Marine	Christchurch, N. Z.	1,962,977 00	33,319 07
United Fire	Manchester	364,280 00	6,627 57
Western	Toronto	1,443,772 00	27,422 40
Totals		$132,377,350 00	$2,077,537 86

TABLE No. 7.

Showing the business of Marine Companies for the year 1885—California business.

NAME.	Location.	Amount Written.	Premiums on same.	Losses Paid.	Ratio of Losses to Premiums.
Alliance Marine	London	$747,481 00	$8,123 30	$8,605 40	105.9
Baloise	Basle, Switzerland	1,174,406 00	17,914 25	17,234 99	96.2
British and Foreign Marine	Liverpool	5,296,875 00	74,359 53	82,355 00	110.7
Boston Marine	Boston	381,980 00	14,103 86	5,566 00	39.5
Canton	Hong Kong	3,970,003 00	40,311 27	21,048 77	52.2
China Traders'	Hong Kong	2,045,919 00	8,831 56	1,262 50	14.3
Chinese	Hong Kong	1,378,943 00	11,609 40	22,698 00	194.7
Commercial Union	London	3,444,907 00	46,427 71	58,960 70	126.9
Danube	Vienna	218,996 00	1,975 10	369 55	18.7
Fonciere	Paris	2,717,197 00	29,962 30	2,304 00	7.7
Globe Marine	London	232,240 00	2,672 68	15,326 00	573.5
Great Western	New York	3,154,352 00	69,083 54	68,590 21	99.3
Helvetia Marine	St. Gall, Switzerland	1,474,406 00	17,914 25	17,234 99	96.2
Insurance Company of North America	Philadelphia	977,831 00	28,918 29	13,615 06	47.1
International Marine	Liverpool	235,380 00	3,347 00	None.	------------
London	London	747,481 00	8,123 30	8,605 40	105.9
London and Provincial Marine	London	808,208 00	16,394 65	268 37	1.6
Magdeburg General	Magdeburg	1,210,355 00	9,334 50	8,463 60	90.7
Mannheim	Mannheim	100,745 00	969 37	None.	------------
Man On	Hong Kong	1,921,072 00	14,445 33	777 86	5.4
Maritime	Liverpool	756,720 00	8,131 22	12,824 14	157.7
National Fire and Marine	Dunedin	882,601 00	23,488 83	11,028 07	46.9
National Marine	London	227,368 00	2,146 05	5,000 00	232.9
New Orleans Insurance Association	New Orleans	722,899 00	9,208 75	None.	------------
New Zealand	Auckland	3,705,923 00	34,283 58	5,692 85	16.6
North China	Shanghai	6,879,093 00	38,401 00	31,699 94	82.5
On Tai	Hong Kong	1,865,718 00	10,599 38	None.	------------
Providence-Washington	Providence	748,154 00	27,017 76	20,254 11	74.9
Reliance Marine	Liverpool	496,880 00	5,839 16	187 00	3.2
Saint Paul	St. Paul, Minnesota	394,388 00	2,422 30	None.	------------
Sea	Liverpool	1,186,006 00	23,090 00	23,956 00	103.3
South British Fire and Marine	Auckland	882,601 00	23,488 83	11,028 07	46.9
Standard Marine	Liverpool	89,811 00	1,619 16	None.	------------
Straits	Singapore	1,471,477 00	16,790 18	14,271 60	84.9
Switzerland Marine	Zurich	1,474,406 00	17,914 25	17,234 99	96.2
Thames and Mersey	Liverpool	13,235,722 00	182,788 00	45,566 00	24.9

The Marine	London	1,964,938 00	41,128 54	2,487 76	6.0
Transatlantic Marine	Berlin	5,912,549 00	44,533 40	8,414 49	18.9
Union Fire and Marine	Christchurch, New Zealand	753,634 00	25,385 12	2,880 44	11.3
Union Insurance Society	Hong Kong	4,475,451 00	36,891 28	39,703 00	107.6
Union Marine	Liverpool	762,220 00	8,282 46	12,824 14	154.8
Universal Marine	London	1,143,325 00	1,416 22	None.	
Yangtsze	Shanghai	1,751,091 00	14,817 00	20,006 87	141.0
Totals		$84,321,752 00	$1,024,506 66	$638,345 87	62.2

TABLE NO. 8.

Showing Marine Risks in Force on December 31, 1885—California business.

NAME.	Location.	Risks.	Premiums.
Alliance Marine	London	$49,282 00	$609 48
Baloise	Basle, Switzerland	74,006 00	1,449 33
British and Foreign Marine	Liverpool	1,305,506 00	22,056 19
Boston Marine	Boston	170,360 00	11,010 70
Canton	Hong Kong	626,946 00	15,697 26
China Traders'	Hong Kong	264,403 00	1,047 26
Chinese	Hong Kong	278,318 00	3,952 61
Commercial Union	London	1,052,152 00	19,473 74
Danube	Vienna	4,403 00	52 75
Fonciere	Paris	423,489 00	3,922 59
Globe Marine	London	138,680 00	2,115 18
Great Western	New York	577,916 00	43,044 66
Helvetia Marine	St. Gall, Switzerland	74,006 00	1,449 33
Insurance Company of North America	Philadelphia	294,159 00	14,764 28
International Marine	Liverpool	65,605 00	782 00
London	London	49,282 00	609 48
London and Provincial Marine	London	37,159 00	2,517 05
Magdeburg General	Magdeburg	58,079 00	607 25
Mannheim	Mannheim	21,800 00	388 70
Man On	Hong Kong	179,886 00	1,423 09
Maritime	Liverpool	76,747 00	1,429 73
National Fire and Marine	Dunedin	226,745 00	17,206 25
National Marine	London	24,120 00	371 20
New Orleans Insurance Association	New Orleans	51,400 00	823 40
New Zealand	Auckland	403,226 00	8,149 48
North China	Shanghai	596,617 00	4,190 00
On Tai	Hong Kong	206,209 00	1,300 21
Providence-Washington	Providence, R. I.	225,423 00	13,509 42
Reliance Marine	Liverpool	71,492 00	1,371 39
Saint Paul	St. Paul, Minn.	10,228 00	163 65
Sea	Liverpool	440,816 00	8,580 00
South British Fire and Marine	Auckland	226,745 00	17,206 25
Standard Marine	Liverpool	77,729 00	1,536 24
Straits	Singapore	338,450 00	5,538 94
Switzerland Marine	Zurich	74,006 00	1,449 34
Thames and Mersey	Liverpool	3,755,335 00	55,762 00
The Marine	London	455,381 00	9,355 78
Transatlantic Marine	Berlin	434,029 00	5,632 50
Union Fire and Marine	Christchurch, N. Z.	340,376 00	19,454 13
Union Insurance Society	Hong Kong	405,959 00	4,989 84
Union Marine	Liverpool	76,747 00	1,429 73
Universal Marine	London	10,000 00	168 00
Yangtsze	Shanghai	119,058 00	1,104 00
Totals		$14,392,275 00	$327,694 41

TABLE No. 9.

Showing New Policies Written during the year, Policies Renewed, and Amount of Policies in Force on December 31, 1885, of Life Insurance Companies doing business in California—California business.

Name.	Location.	New Policies Written.			Policies Renewed.			Policies in Force December 31, 1885.		Losses and Endowments Paid.
		Number.	Amount.	Premium.	Number.	Amount.	Premium.	Number.	Amount.	
Pacific Mutual Life	San Francisco	326	$813,426 00	$36,807 65	1,446	$4,187,413 00	$187,662 06	2,020	$5,238,446 00	$117,006 00
Ætna Life	Hartford	42	87,000 00	3,152 75	235	653,717 00	24,504 22	500	900,936 00	26,888 65
Brooklyn Life	New York	3	2,750 00		34	132,500 00	3,994 25	134	493,333 00	12,700 00
Connecticut Mutual Life	Hartford	35	101,678 00	7,978 00	581	2,877,800 00	91,249 46	922	3,413,443 00	81,705 00
Equitable Life	New York	273	1,216,000 00	48,755 63	1,087	5,152,000 00	213,221 67	1,596	6,844,693 00	98,433 63
Germania Life	New York	45	142,000 00	7,881 87	2,055	2,807,892 00	74,225 87	2,189	3,446,300 00	131,409 05
Hartford Life	Hartford	66	301,000 00							
Manhattan Life	New York									
Mutual Benefit Life	Newark	145	533,500 00	20,728 42	418	1,590,300 00	61,596 71	596	2,209,540 00	26,666 00
Mutual Life	New York	374	1,159,850 00	63,575 51	2,425	9,342,285 00	353,963 65	3,824	12,613,336 00	310,272 00
New England Mutual Life	Boston	242	720,000 00	31,847 61	863	2,533,500 00	101,010 28	1,375	3,815,120 00	80,888 00
New York Life	New York	109	422,500 00	21,120 51	778	3,235,000 00	130,841 18	1,270	4,600,000 00	144,795 44
Northwestern Mutual Life	Milwaukee	86	285,100 00	13,133 60	279	887,600 00	37,646 36	538	1,447,721 00	41,844 80
Travelers'	Hartford	38	72,700 00	1,912 91	155	390,994 00	15,765 62	202	465,650 00	
Union Mutual Life	Portland, Me.									
United States Life	New York	66	139,500 00	5,192 80						
Washington Life	New York	10	44,306 00	2,186 66	122	291,205 00	10,435 74	132	335,511 00	3,866 00
Charter Oak Life	Hartford				73	176,730 00	5,925 83	307	566,994 00	3,360 00
National Life	Chicago				36		4,687 00	33		10,000 00
Phœnix Mutual Life	Hartford				105	252,600 00	9,341 00	187	331,605 00	25,010 00
Totals		1,870	$6,041,310 00	$264,273 92	10,692	$34,511,536 00	$1,326,070 90	15,825	$46,722,628 00	$1,114,844 57

TABLE No. 10.

Showing the business of Accident, Fidelity, Steam Boiler, and Plate Glass Insurance Companies, for the year 1885—California business.

NAME.	LOCATION.	NEW POLICIES ISSUED.			POLICIES RENEWED.			POLICIES IN FORCE DECEMBER 31, 1885.		Losses Paid.
		Number.	Amount.	Premium.	Number.	Amount.	Premium.	Number.	Amount.	
Pacific Surety Company*	San Francisco	96	$296,133 00	$2,948 39				93	$292,233 00	None.
Accident Insurance Company of North America	Montreal	456	1,087,500 00	7,352 91	228	$648,500 00	$4,197 45	666	1,691,500 00	$7,512 42
Fidelity and Casualty	New York	708	2,069,370 00	19,611 03	300	993,500 00	7.212 56	1,008	3,062,870 00	2,812 00
Travelers'	Hartford	2,002	5,702,000 00	18,508 66	1,140	3,813,000 00	22,816 17	2,035	6,206,000 00	47,809 15
Pacific Mutual Life Ins. Co.	San Francisco	1,494	4,147,000 00	20,906 50				835	2,221,500 00	1,952 00
American Surety	New York		152,550 00	1,513 75					152,550 00	None.
American Steam Boiler	New York		124,250 00	1,405 83					156,250 00	None.
Hartford Steam Boiler	Hartford	59	211,080 00	3,180 20	7	32,000 00	393 75	64	239,080 00	None.
Lloyd's Plate Glass	New York	25	11,309 00	376 53				25	11,309 00	None.
Metropolitan Plate Glass	New York	56	28,080 00	1,132 47	65	53,006 00	1,929 22	115	80,122 00	527 13

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* Began business August 4, 1885.

REPORT.

OFFICE OF INSURANCE COMMISSIONER,
SAN FRANCISCO, July 19, 1886.

To the Hon. GEORGE STONEMAN, *Governor of California:*

In compliance with the provisions of Section 595 of the Political Code, I herewith present the eighteenth annual report of this department, showing in detail the condition and business of the fire, marine, life, and other insurance companies transacting business in this State during the year ending the thirty-first day of December, 1885, together with the receipts and expenditures of the office for the same period, as shown by the records made by my predecessor, which are relied upon as correct, I having entered upon the duties of the office on the fifteenth day of April last.

On September 14, 1885, the Universal Accident Indemnity Company of San Francisco was authorized to transact business. On December 10, 1885, its certificate of authority was revoked, as, upon examination, the company was found to be insolvent.

In the month of March, 1886, the Western Fire and Marine Insurance Company discontinued business, having reinsured all outstanding risks in the State Investment and Insurance Company.

Soon after assuming the duties of this office, complaint was made to me that the Sun Fire Office Company of London, England, had not complied with the law governing foreign insurance companies, requesting me to withdraw its certificate of authority to do business in this State until it had complied with the law. My action relating thereto is explained by the following correspondence:

LAW OFFICE OF HENRY PERRY, 230 MONTGOMERY STREET,
SAN FRANCISCO, May 10, 1886.

J. C. L. WADSWORTH, ESQ., *Insurance Commissioner, California Street, City:*

SIR: I beg to draw your attention to the fact that the Sun Fire Office of London, a foreign insurance corporation, has not complied with the State law regarding foreign insurance corporations. For particulars I beg to refer to papers on file, and to an article published in the Coast Review, Vol. XXI, No. 3, p. 204.

As the papers were filed before your appointment, the matter has probably escaped your attention.

I would feel obliged by your informing me what you propose doing in the premises.

Yours, respectfully,

(Signed:) HENRY PERRY.

OFFICE OF INSURANCE COMMISSIONER,
SAN FRANCISCO, May 12, 1886.

HENRY PERRY, ESQ., *230 Montgomery Street, San Francisco:*

DEAR SIR: Yours of the tenth instant received, in which you call my attention to the "Sun Fire Office of London," and ask me what I propose to do in the premises. In reply I would say that when any formal charge or complaint is laid before me officially, I shall then deem it my duty to investigate the same.

Yours, respectfully,

J. C. L. WADSWORTH,
Insurance Commissioner.

Law Office of Henry Perry, 230 Montgomery Street,
San Francisco, May 19, 1886.

Hon. J. C. L. Wadsworth, *Insurance Commissioner for California, City:*

Dear Sir: Replying to your favor of the twelfth instant, I desire to state that one of my clients has called my attention to the fact that the Sun Insurance Company of London is doing an insurance business in California, without having complied with the laws governing foreign insurance companies, in not having filed a proper statement as required by law.

The statement filed is deficient in the following particulars:

First—That it fails to state the amount of capital stock subscribed.

Second—The amount paid in or engaged.

Third—Its assets in detail.

Fourth—That the statement on file in your office is not signed and acknowledged by the duly authorized officers of the company at the home office, but by a person residing in the State of New York, who holds a power of attorney for the United States only.

In short, the statement filed is a United States branch statement instead of a home office statement, as prescribed by law.

As a citizen of this State, I protest against the company above mentioned being permitted to continue underwriting in California, until it has complied with the laws of this State; and I request you to withdraw its certificate of authority to do business in this State, until it has complied with the laws of California governing foreign insurance companies.

Yours, respectfully,

(Signed:) HENRY PERRY.

Office of Insurance Commissioner,
San Francisco, May 19, 1886.

Messrs. Hutchinson & Mann, *Agents of the Sun Fire Office Company of London:*

Gentlemen: I have received a communication complaining that the Sun Fire Office Company of London is doing an insurance business in California without having complied with the laws governing foreign fire insurance companies, and stating wherein the said company has failed to comply with the same, protesting against the said company being permitted to continue underwriting in California, and asking me to withdraw its certificate of authority to do business in this State until it has complied with the law.

I deem it my duty, in face of the communication, to investigate the complaint made, and will be pleased (if you desire so to do) to have you call at this office and read the said communication.

Yours, respectfully,

J. C. L. WADSWORTH,
Insurance Commissioner.

Office of Insurance Commissioner,
San Francisco, June 17, 1886.

Hon. E. C. Marshall, *Attorney-General of the State of California:*

Dear Sir: Inclosed please find letter from Mr. Henry Perry, stating that the Sun Insurance Company of London is doing business in this State without having complied with the laws governing foreign insurance companies, in not having filed a proper statement as required by law, protesting against the said company being permitted to continue underwriting in California, and requesting me to withdraw its certificate of authority to do business in this State, until the law has been complied with. I also inclose the statement filed with my predecessor in office, who granted the certificate of authority to which the objection of Mr. Perry is made.

These documents I submit to you and respectfully ask for your written opinion, at as early a date as convenient, as to whether the statement filed is or is not such a statement as the laws of the State require from foreign insurance companies to allow them to do business in California, and if not, what my authority is in the premises.

Yours, respectfully,

J. C. L. WADSWORTH,
Insurance Commissioner.

Hutchinson & Mann, General Insurance Agency,
322 and 324 California Street,
San Francisco, July 10, 1886.

Hon. J. C. L. Wadsworth, *Insurance Commissioner for California:*

Dear Sir: Referring to the letter of Mr. Henry Perry to you of May 19, 1886, concerning the Sun Fire Office Company of London, England, a copy of which letter we were permitted to take through your courtesy, we beg leave to reply, as follows:

First—The writer of the letter who objects to the company being permitted to continue underwriting in California states that he is a citizen of this State, but his communication seems to carefully withhold from you the information as to whether he claims to be a policy holder of the company, or to have any business with it, and also fails to inform you whether he has any interest in the matter, either direct or remote. We suppose, however, that the fact of Mr. Perry being a citizen is in itself sufficient to authorize him to arbitrarily make the inquiry that he does.

Second—Mr. Perry's grievance proceeds on the theory that the company has not filed the statement required by law, and to adopt his own language, "in short, the statement filed is a United States branch statement instead of a home office statement as prescribed by law." We are informed that the insurance law does not in terms anywhere prescribe that the statement must be a home office statement or a United States branch statement, or any other particular kind of a statement, but merely that "the statement must exhibit the conditions and affairs of any such corporation, person, firm, or association on the thirty-first day of December then next preceding."

It therefore rests with the Insurance Commissioner to say whether the statement contains what it should or not. We are informed that the object of a statement is that the assets disclosed in it may be looked to for protection and security to the policy holders and those transacting business with the company, and that in the event of unpaid losses, or of the company not meeting its obligations, then these assets may be realized upon and the proceeds used to discharge its obligations. Can Mr. Perry tell us of what possible utility it would be, or who would be further secured, by setting out a statement, which he calls a "Home Office Statement," wherein there shall be enumerated a long line of assets not even in the United States, but all situated in a foreign land where the combined power of all the Courts of America could not reach those assets or use them to discharge the American obligations of the company.

The statement on file sets out in detail all assets in America.

Third—The fact exists that this company was authorized by your predecessor, Hon. George A. Knight, as Insurance Commissioner, to transact insurance business in this State, and it holds the certificate of authority so to do from the insurance department of the State. We are informed that such certificate, granted by the State, can only be revoked through judicial process in the Courts, and in the name of the State.

The statement now on file in your office was accepted by your predecessor as being in compliance with the law, and we assume that having been thus accepted, it would stand as such until judicially declared to be invalid, and until the time arrives for another statement to be filed under the law.

It is just possible that the insurance law of this State, for which your office is certainly not responsible, exacts the statement referred to by Mr. Perry, and if, after a full consideration of the question, you should demand it, we will, at the proper time, do everything in our power to comply with such demand. Awaiting your further advices, we remain,

Yours, very respectfully,
(Signed:) HUTCHINSON & MANN,
General Managers for the Sun Fire Office Company of London, for California.

OFFICE OF THE ATTORNEY-GENERAL OF THE STATE OF CALIFORNIA,
SACRAMENTO, July 16, 1886.

Hon. J. C. L. WADSWORTH:

DEAR SIR: I have not replied to your letter of June seventeenth, because I have been absent from the city for the summer vacation.

I have carefully compared the statement filed by the "Sun Insurance Company of London" with the provision of the Code of California, and in my opinion it does not comply with its requirements.

Mr. Perry's objection is well taken. Since the *foreign company* applies for the certificate, the *foreign company* must make the disclosure of its condition required by the Code, and the statement of the condition of the American branch is not sufficient. The section is so plain there is no room for construction or need for the citation of other sections to support my view of it.

As to your authority in the premises, it goes no further than to notify the delinquent company of the insufficiency of the statement, and to require it to cease underwriting in this State till a lawful statement is filed. The authority of the Commissioner goes no further, as no power is given him to recall or cancel a certificate issued by his predecessor.

Respectfully,
(Signed:) E. C. MARSHALL,
Attorney-General.

OFFICE OF THE INSURANCE COMMISSIONER,
SAN FRANCISCO, July 16, 1886.

Messrs. HUTCHINSON & MANN, *agents for California of the Sun Fire Office Company of London, England:*

GENTLEMEN: I am in receipt of your favor of the tenth instant, replying to my communication of May 19, 1886, wherein I gave you notice of the complaint made by Mr. Henry Perry, that your company is doing an insurance business in California without having complied with the law of the State governing foreign insurance companies, in not having filed a proper statement, protesting against the company being permitted to continue said business, and requesting me to withdraw its certificate of authority until the law is complied with; also, that I deemed it my duty to investigate the same.

I made a careful examination of the law and the statement filed, and came to the conclusion that the complaint made was in the main correct; but not desiring to rely upon my judgment alone, I called to my assistance the legal adviser of this department, the Attorney-General of the State, the Hon. E. C. Marshall. I laid all the papers relating to the matter before him, requesting his opinion in writing concerning the same. The Attorney-General has complied with my request. By his opinion (a copy of which I herewith inclose) he advises this department that the Sun Fire Office Company of London has not filed the statement required by law. Therefore, I hereby notify you to discontinue doing any insurance business in this State, as agents or managers for the Sun Fire Office Company of London, England, until such time as the statement required by law has been filed in this office.

Yours respectfully,

J. C. L. WADSWORTH,
Insurance Commissioner.

I find, upon examination of the records of this office, that in preceding years there has been delinquencies in the time for filing the annual statements of the insurance companies as required by Section 617 of the Political Code, and that the penalty for such neglect has never been enforced for the reasons as set forth by a former incumbent of this office, the Hon. J. C. Maynard, in his annual report of date August 5, 1881. Mr. Maynard, in calling attention to this, remarks: "While Section 617 of the Political Code says that 'suits may be instituted' to collect the imposed fine, it nowhere provides a fund, which is indispensably necessary for commencing and prosecuting such suits. Then, again, the fine is so excessive as to defeat itself. Were it fixed at a more moderate sum, it would be paid without suit, which cannot reasonably be expected will be done at its present high figure. A fine of one hundred dollars for a failure to file the statement within the prescribed time, and two hundred dollars for each succeeding month, would, in my judgment, be sufficient and effective."

I fully agree with Mr. Maynard's views, and as the law has never been enforced, and believing if the penalty was reduced that the revenues of the office would be increased should neglect to file the annual statements in time occur in the future, I respectfully recommend that Section 617 of the Political Code be so amended as to make the penalty as above stated, believing that in all cases the amount would be paid promptly, and without a murmur.

I also found that the appropriation for the annual office expenses was exhausted in February last, consequently there has been no money to meet the ordinary expenses for rent, stationery, fuel, postage, etc., for the balance of the fiscal year, to provide for which it will be necessary to make provision by the passage of a deficiency bill.

The original amount allowed for the annual expenses of the office was twenty-four hundred dollars, but has been reduced from time to time to the sum of fifteen hundred dollars, an amount inadequate to the efficient conduct of the office.

The carpets in the office have been laid for between nine and ten years, are worn out, and need replacing, which cannot be done out of the present small amount allowed.

The office is a source of profit to the State. It was created for protection, and not revenue, and should be allowed a sufficient sum to admit of its being managed with efficiency, and maintain a respectable appearance.

The gentlemen managing the insurance interests say, with truth, that they pay all the fees exacted willingly and cheerfully, and think they are entitled to have the office at least on a par with other State offices, particularly as the receipts (entirely paid by them) exceed the disbursements by a large amount, as will readily be perceived by the balance sheet of last year, which shows a net profit to the State of $16,688 36.

The appropriation should not be less than two thousand dollars per year, which amount I respectfully recommend be placed in the next appropriation bill for the current expenses of this office.

Since the date of the last annual report, the following named companies have been admitted to transact insurance business in this State:

Southern California	Los Angeles.
Glasgow and London	Glasgow.
Union Central Life	Cincinnati.
Lloyd's Plate Glass	New York.
Westchester Fire	New York.
Sun Mutual	New Orleans.
Concordia Fire	Milwaukee.
Merchants'	New York.
Franklin Fire	Philadelphia.
Firemen's	Newark.
Caledonia	Edinburgh.
Pacific Surety	San Francisco.
Clinton Fire	New York.
Atlas	London.
Universal Accident Indemnity	San Francisco.
Anglo-Nevada	San Francisco.
Boyleston Mutual	Boston.
Sun Fire Office	London.
National Life	Montpelier, Vt.
Michigan Fire and Marine	Detroit.

The following named companies have ceased to do business in this State:

Germania	New Orleans.
Mechanics' Fire	Brooklyn.
New York Bowery Fire	New York.
Glasgow and London	Glasgow.
Universal Accident Indemnity	San Francisco.
Western Fire and Marine	San Francisco.
Union Central Life	Cincinnati.
New Orleans Insurance Association	New Orleans.
Great Western	New York.
Northwestern National	Milwaukee.

During the year the average percentage of losses to premiums on fire risks was 44.8, and on marine risks 61.3.

Below are given the receipts and expenditures of the office for the calendar year 1885:

RECEIPTS.

Received during the year for fees and taxes		$23,373 40

EXPENDITURES.

Office salaries	$4,599 96	
Office rent	900 00	
Janitor and messenger	690 00	
Blanks and stationery	295 23	
Fuel	41 00	
Newspapers	36 30	
Incidentals (postage stamps, express charges, etc.)	122 55	
		6,685 04
Balance paid State Treasurer		$16,688 36

All of which is respectfully submitted.

J. C. L. WADSWORTH,
Insurance Commissioner.

TABLE No. 11.

Showing the year of organization, location, name of President, Secretary, and Agent or Attorney for California, and date of certificate of authority issued by the Insurance Commissioner, and the date of commencement of business in California of Fire, Marine, and Life Insurance Companies, authorized to transact business on July 6, 1886.

Year of organization.	NAME.	Location.	President.	Secretary.	Agent for California.	Date of Certificate issued by Insurance Commissioner.	Commenced business in California.
1885	Anglo-Nevada	San Francisco	G. L. Brander	C. P. Farnfield		Dec. 1, 1885	Dec. 1, 1885
1861	California	San Francisco	L. L. Bromwell	W. H. C. Fowler		June 24, 1868	February, 1861
1872	Commercial	San Francisco	John H. Wise	Chas. A. Laton		March 1, 1872	March 1, 1872
1863	Fireman's Fund	San Francisco	D. J. Staples	Wm. J. Dutton		June 24, 1868	June, 1863
1864	Home Mutual	San Francisco	J. F. Houghton	Chas. R. Story		June 24, 1868	Dec. 13, 1864
1880	Oakland Home	Oakland	Wm. P. Jones	Wm. F. Blood		Feb. 5, 1880	Feb. 5, 1880
1885	Southern California	Los Angeles	H. C. Sigler	D. E. Miles		Feb. 21, 1885	Feb. 21, 1885
1871	State Investment	San Francisco	A. J. Bryant	Chas H. Cushing		Jan. 13, 1872	Jan. 13, 1872
1882	Sun	San Francisco	C. L. Taylor	E. E. Potter		Feb. 1, 1882	Feb. 1, 1882
1865	Union	San Francisco	Gustave Touchard	Jas. D. Bailey		June 27, 1868	June 20, 1865
1819	Ætna	Hartford	L. J. Hendee	J. Goodnow	G. C. Boardman	June, 1868	June 20, 1865
1863	Agricultural	Watertown, N. Y.	Isaac Munson	H. M. Stevens	Hutchinson & Mann	August 2, 1876	August 2, 1876
1868	Allemannia	Pittsburgh	R. C. Schmertz	C. F. Herrosee	Hutchinson & Mann	April 21, 1879	April 21, 1879
1824	Alliance Marine	London	Lord Rothschild	Douglass Owen	Parrott & Co.	May 28, 1881	May 28, 1781
1871	Amazon	Cincinnati	Gazzam Gano	J. H. Beattie	Smith & Moody	October 1, 1872	October 1, 1872
1846	American	Newark	F. H. Harris	J. H. Worden	Balfour, Guthrie & Co.	August 13, 1883	August 13, 1883
1853	American Central	St. Louis	Geo. T. Cram	C. Christensen	Smith & Moody	April 15, 1874	April 15, 1874
1810	American Fire	Philadelphia	T. H. Montgomery	A. C. L. Crawford	Brown, Craig & Co.	October 31, 1872	October 31, 1872
1808	Atlas	London	Sir W. J. W. Baynes	S. J. Pipkin	H. M. Newhall & Co.	August 15, 1885	August 15, 1885
1864	Baloise	Basle, Switzerland	R. P. Vischer	C. Blankarts	H. W. Syz	Nov. 28, 1876	Nov. 28, 1876
1865	Boatman's Fire and Marine	Pittsburgh	O. P. Scaife	H. H. Schenck	Hutchinson & Mann	April 2, 1883	April 2, 1883
1873	Boston Marine	Boston	R. B. Fuller	Tho. H. Lord	J. N. Knowles	August 22, 1882	August 22, 1882
1872	Boylston Mutual	Boston	Jos. W. Balch	W. Glover	H. M. Newhall & Co.	Dec. 16, 1885	Dec. 16, 1885
1833	British America	Toronto	Jno. Morison	Silas P. Wood	Butler & Haldan	March 11, 1875	March 11, 1875
1863	British and Foreign Marine	Liverpool	Tho. Chilton	W. D. Pritt	Balfour, Guthrie & Co.	October 10, 1868	August 25, 1864
1805	Caledonian	Edinburgh	D. Deuchar	D. J. Surrenne	Balfour, Guthrie & Co.	July 24, 1885	July 24, 1885
1881	Canton	Hong Kong	Jardine, Matheson & Co.		Parrot & Co.	June 1, 1882	June 1, 1882
1865	China Traders'	Hong Kong	A. McIver	W. H. Ray	Williams, Dimond & Co.	Sept. 4, 1871	Sept. 4, 1871
1871	Chinese	Hong Kong		S. J. Gower	W. T. Coleman & Co.	June 9, 1871	June 9, 1871
1837	Citizens'	St. Louis	J. B. M. Kehlor	J. P. Harrison	Hutchinson & Mann	Sept. 5, 1878	Sept. 5, 1878
1836	Citizens'	New York	J. M. McLean	E. M. Parker	C. Bertheau	Nov. 27, 1883	Nov. 27, 1883
1881	City of London Fire	London	Sir H. E. Knight	L. C. Phillips	W. J. Callingham	May 19, 1881	May 19, 1881
1850	Clinton Fire	New York	G. T. Patterson, Jr.	C. E. W. Chambers	Jacobs & Easton	August 6, 1885	August 6, 1885
1861	Commercial Union	London	A. R. Scoble	G. L. Bennett	C. F. Mullins	June 22, 1870	June 22, 1870
1870	Concordia Fire	Milwaukee	J. H. Buening	G. Wollaeger	Jacobs & Easton	April 22, 1885	April 22, 1885
1850	Connecticut	Hartford	J. D. Browne	C. R. Burt	W. Macdonald	August 20, 1873	August 20, 1873

1852	Continental	New York	H. H. Lamport	Cyrus Peck	Hutchinson & Mann	Sept. 21, 1872	Sept. 21, 1872
1867	Danube	Vienna	L. Lichtenstein	C. Colditz	H. Balzer & Co.	March 31, 1879	March 31, 1879
1872	Eliot	Boston	G. C. George	A. P. Curtis	E. E. Potter	October 23, 1877	October 23, 1877
1872	Farragut Fire	New York	J. E. Leffingwell	Sam'l Darbee	Hutchinson & Mann	March 25, 1879	March 25, 1879
1820	Fire Association	Philadelphia	Jesse Lightfoot	W. S. Winship	Chas. A. Laton	Dec. 9, 1873	Dec. 9, 1873
1880	Fire Insurance Association	London	R. N. F. Kingscote	W. P. Clirehugh	Jacobs & Easton, W. L. Chalmers	Sept. 10, 1880	Sept. 10, 1880
1825	Firemen's	Baltimore	J. M. Anderson	Wm. Armstrong	Hutchinson & Mann	Nov. 24, 1880	Nov. 24, 1880
1855	Firemen's	Newark	S. R. W. Heath	Chs. Colyer	Hutchinson & Mann	June 2, 1885	June 2, 1885
1879	Fonciere	Paris	A. Fraissinet	M. Moutier	Hutchinson & Mann	Nov. 20, 1880	Nov. 20, 1880
1829	Franklin Fire	Philadelphia	J. W. McAllister	E. T. Cresson	E. E. Potter	May 15, 1885	May 15, 1885
1865	German	Freeport, Ill.	M. Hettinger	F. Gund	Jacobs & Easton	April 9, 1883	April 9, 1883
1872	German-American	New York	E. Oelberman	J. A. Silvey	Tom C. Grant	Octobsr 10, 1873	October 10, 1873
1862	German Fire	Pittsburgh	C. Barchfeld	F. L. Gross	Jacobs & Easton	April 8, 1879	April 8, 1879
1859	Germania Fire	New York	R. Garrigue	H. Schumann	Gutte & Frank	October 25, 1869	October 25, 1869
1853	Girard Fire and Marine	Philadelphia	A. S. Gillett	E. F. Merrill	Hutchinson & Mann	Sept. 23, 1872	Sept. 23, 1872
1849	Glen's Falls	Glen's Falls, N. Y.	R. M. Little	J. L. Cunningham	Jacobs & Easton	April 8, 1876	April 8, 1876
1870	Globe Marine	London	B. Whitworth	B. F. Cobb	W. T. Coleman & Co.	Feb. 26, 1877	Feb. 26, 1877
1821	Guardian Fire and Life	London	A. G. H. Gibbs	T. G. C. Browne	W. J. Landers	October 24, 1876	October 24, 1876
1854	Hamburg-Bremen	Hamburg	Wm. Gossler	S. Von Dorrien	Speyer & Herold	Sept. 26, 1868	May 4, 1862
1876	Hamburg-Magdeburg	Hamburg	A. Bredikow	T. Hupeden	Gutte & Frank	August 16, 1876	August 16, 1876
1852	Hanover Fire	New York	B. S. Walcott	I. Remsen Lane	C. Bertheau	October 25, 1869	October 25, 1869
1810	Hartford Fire	Hartford	Geo. L. Chase	C. B. Whiting	Belden & Cofran	Jan. 17, 1870	Jan. 17, 1870
1858	Helvetia Marine	St. Gall, Switzerland	C. B. Jacob	M. T. Grossman	H. W. Syz	Nov. 28, 1876	Nov. 28, 1876
1861	Helvetia Swiss Fire	St. Gall, Switzerland	C. B. Jacob	M. T. Grossman	H. W. Syz	Dec. 6. 1876	Dec. 6, 1876
1853	Home	New York	C. J. Martin	J. H. Washburn	A. E. Magill	Nov. 13, 1868	Nov. 13, 1868
1825	Howard	New York	H. A. Oakley	C. A. Hull	Oliver Hawes	July 30, 1883	July 30, 1883
1803	Imperial	London	F. F. Lidderdale	E. C. Smith	Robt. Dickson	Sept. 26, 1868	May 1, 1862
1794	Insurance Co. of North America	Philadelphia	Chas. Platt	G. E. Fryer	Tho. A. Mitchell	October 13, 1872	October 13, 1872
1794	Ins. Co. of the State of Pennsylvania	Philadelphia	H. D. Sherrerd	J. H. Hollingshead	Brown, Craig & Co.	Feb. 15, 1878	Feb. 15, 1878
1879	International Marine	Liverpool	T. B. Royden	W. W. Clay	Donaldson & Co.	August 26, 1880	August 26, 1880
1852	Lancashire	Manchester	N. Shelmerdine	Geo. Stewart	Falkner, Bell & Co.	July 10, 1874	July 10, 1874
1879	Lion Fire	London	J. S. Forbes	Tho. B. Bell	Geo. D. Dornin	April 12, 1880	April 12, 1880
1836	Liverpool and London and Globe	Liverpool	Jno. M. Dove	Alex. Duncan	Chas. D. Haven	Sept. 26, 1868	May 1, 1862
1720	London	London	L. A. Wallace	J. P. Laurence	Robt. Dickson	August 28, 1872	August 28, 1872
1861	London and Lancashire	Liverpool	C. G. Fothergill	J. B. Moffat	Balfour, Guthrie & Co.	Nov. 6, 1879	Nov. 6, 1879
1881	London and Provincial Fire	London	E. C. Morgan	H. Williams	H. W. Syz	April 13, 1882	April 13, 1882
1860	London and Provincial Marine	London	J. Borradaile	J. L. Daniell	Hutchinson & Mann	April 3, 1879	April 3, 1879
1872	Magdeburg General	Magdeburg	T. Dammann	A. Kalkow	Gutte & Frank	August 31, 1878	August 31, 1878
1824	Manchester Fire	Manchester	J. B. Northcott	F. Hudson	Balfour, Guthrie & Co.	April 22, 1880	April 22, 1880
1879	Mannheim	Mannheim	F. Engelhorn	C. Girtanner	Geo. Marcus & Co.	Nov. 10, 1884	Nov. 10, 1884
1881	Man On	Hong Kong	Quon Hoi Chune	Woo Lin Yuen	Tuck, Chong & Co.	October 31, 1881	October 31, 1881
1864	Maritime	Liverpool	W. H. Haynes	W. Relton	E. L. Woods	July 3, 1874	July 3, 1874
1858	Merchants'	Newark	Henry Bowles	J. R. Mulliken	Jacobs & Easton	Jan. 31, 1882	Jan. 31, 1882
1850	Merchants'	New York	Jno. H. Morris	I. S. Mettler	Jacobs & Easton	May 8, 1885	May 8, 1885
1881	Michigan Fire and Marine	Detroit	F. Palms	E. C. Preston	E. E. Potter	June 28, 1886	June 28, 1886
1823	National	Dublin		H. Engelbach	H. M. Newhall & Co.	October 18, 1884	October 18, 1884
1838	National Fire	New York	H. T. Drowne	F. J. Walton	W. J. Dutton	May 13, 1879	May 13, 1879
1871	National Fire	Hartford	M. Howard	Jas. Nichols	Hagan, Mannheim & Co.	August 5, 1874	August 5, 1874
1873	National Fire and Marine	Dunedin, N. Z.	J. M. Ritchie	A. H. Jack	W. J. Callingham	October 1, 1878	October 1, 1878
1882	National Marine	London	H. W. Petre	Wm. Gray	Gutte & Frank	October 9, 1883	October 9, 1883
1869	New Hampshire Fire	Manchester, N. H.	J. A. Weston	J. C. French	Jos. C. Jennings & Co.	Nov. 30, 1880	Nov. 30, 1880
1859	New Zealand	Auckland	J. Williamson	G. P. Pierce	Hugh Craig	March 27, 1875	March 27, 1875

TABLE No. 11—Continued.

Year of organization.	NAME.	Location.	President.	Secretary.	Agent for California.	Date of Certificate issued by Insurance Commissioner.	Commenced business in California.
1850	Niagara Fire	New York	P. Notman	W. Pollock	Speyer & Herold	October 18, 1878	October 18, 1878
1872	North American	Boston	A. Bowker	E. E. Patridge	E. E. Potter	March 27, 1884	March 27, 1884
1809	North British and Mercantile	London	G. H. Burnett	F. W. Lance	Tom C. Grant	Sept. 26, 1868	October 13, 1862
1863	North China	Shanghai	E. H. Lavers	Alex. Ross	Macondray & Co.	June 13, 1876	June 13, 1876
1836	Northern	London	Sir Wm. Miller	Jas. Valentine	Robt. Dickson	Sept. 26, 1868	May 1, 1862
1868	North German Fire	Hamburg	J. Nordheim	C. Perger	Walter Speyer	Sept. 20, 1877	Sept. 20, 1877
1797	Norwich Union	Norwich, England	H. S. Patteson	C. E. Bignold	Falkner, Bell & Co.	July 13, 1877	July 13, 1877
1877	On Tai	Hong Kong	Lee Sing	Ho Amei	Lai, Hing Lung & Co.	Nov. 22, 1877	Nov. 22, 1877
1881	Oregon Fire and Marine	Portland	M. W. Fecheimer	Edward Hall	Hagan, Mannheim & Co.	August 27, 1884	August 27, 1884
1867	Orient	Hartford	J. W. Brooks	G. W. Lester	Geo. D. Dornin	March 10, 1881	March 10, 1881
1851	Pacific Fire	New York	T. F. Jeremiah	F. T. Stinson	Smith & Moody	March 23, 1881	March 23, 1881
1854	Pennsylvania	Philadelphia	C. Yeager	Thos. D. Keller	Hutchinson & Mann	August 29, 1882	August 29, 1882
1825	Pennsylvania Fire	Philadelphia	J. Devereux	J. L. Thompson	Brown, Craig & Co.	Dec. 20, 1875	Dec. 20, 1875
1862	People's	Pittsburgh	Jas. Herdman	W. F. Gardner	Hutchinson & Mann	June 2, 1884	June 2, 1884
1853	Phenix	New York	S. Crowell	P. Shaw	Brown, Craig & Co.	Nov. 9, 1868	August 25, 1864
1854	Phœnix	Hartford	H. Kellogg	D. W. C. Skilton	A. E. Magill	July 16, 1868	June 29, 1863
1782	Phœnix	London	G. A. Fuller	W. C. Macdonald	Butler & Haldan	Dec. 22, 1879	Dec. 22, 1879
1872	Prescott	Boston	F. Green	F. H. Stevens	E. E. Potter	April 22, 1881	April 22, 1881
1799	Providence-Washington	Providence, R. I.	J. H. DeWolf	J. B. Branch	W. J. Dutton	Dec. 31, 1874	Dec. 31, 1874
1845	Prussian National	Stettin	G. Bartels	O. Noehmer	A. Badlam & Co.	Nov. 15, 1881	Nov. 15, 1881
1858	Queen	Liverpool	J. M. Wilson	T. W. Thomson	Robt. Dickson	March 10, 1874	March 10, 1874
1881	Reliance Marine	Liverpool	L. R. Bailey	F. W. Dixon	Henry Lund & Co.	Dec. 19, 1881	Dec. 19, 1881
1845	Royal	Liverpool	J. H. McLaren	D. Johnson	Falkner, Bell & Co.	June 23, 1869	June 23, 1869
1865	Saint Paul	St. Paul, Minn.	C. H. Bigelow	C. B. Gilbert	Hutchinson & Mann	Sept. 23, 1872	Sept. 23, 1872
1824	Scottish Union and National	Edinburgh	J. M. McCandlish	P. Pattison	Hagan, Mannheim & Co.	July 19, 1881	July 19, 1881
1875	Sea	Liverpool	R. P. Wood	W. Bates	Meyer, Wilson & Co.	July 19, 1876	July 19, 1876
1841	Security	New Haven	C. S. Leete	H. Mason	W. Macdonald	Jan. 12, 1877	Jan. 12, 1877
1872	South British Fire and Marine	Auckland	W. C. Daldy	G. Johnston	W. J. Callingham	August 23, 1877	August 23, 1877
1849	Springfield Fire and Marine	Springfield, Mass.	J. N. Dunham	S. J. Hall	Jacobs & Easton	April 6, 1881	April 6, 1881
1871	Standard Marine	Liverpool	N. Duckworth	John Gick	J. D. Spreckels & Bros.	June 25, 1881	June 25, 1881
1883	Straits	Singapore	Jno. Anderson	Thos. Butler	Geo. Marcus & Co.	July 18, 1884	July 18, 1884
1866	Svea Fire and Life	Gothenburg, Sweden	C. O. Kjellberg	E. Boye	J. M. Philip	Sept. 22, 1884	Sept. 22, 1884
1710	Sun Fire Office	London		U. S. Gilbert	Hutchinson & Mann	Feb. 26, 1886	Feb. 26, 1886
1855	Sun Mutual	New Orleans	Jas. I. Day	H. Carpenter	J. C. Jennings & Co.	April 13, 1885	April 13, 1885
1869	Switzerland Marine	Zurich	R. Naef	H. Knorr	H. W. Syz	October 7, 1874	October 7, 1874
1871	Teutonia	New Orleans	W. B. Schmidt	A. P. Noll	Hutchinson & Mann	April 18, 1879	April 18, 1879
1860	Thames and Mersey	Liverpool	Jas. Poole	J. Kidman	W. G. Harrison	August 21, 1876	August 21, 1876
1836	The Marine	London	J. R. Engledue	R. J. Lodge	G. W. McNear	Sept. 14, 1877	Sept. 14, 1877
1865	Traders'	Chicago	E. Buckingham	R. J. Smith	W. F. Blood	June 6, 1873	June 6, 1873
1872	Transatlantic Fire	Hamburg	W. Jacobsen		Geo. Marcus & Co.	August 2, 1872	August 2, 1872
1872	Transatlantic Marine	Berlin	E. Hergersberg	J. A. Pfaehler	Thannhauser & Co.	June 24, 1873	June 24, 1873
1804	Union	Philadelphia	W. S. Hassall	J. M. Cowell	Jacobs & Easton	October 11, 1880	October 11, 1880

1835	Union	Hong Kong	P. Ryrie	N. I. Ede	Page Brothers	Dec. 18, 1883	Dec. 18, 1883
1877	Union Fire and Marine	Christchurch, N. Z.	J. T. Peacock	W. D. Meares	L. L. Bromwell	Feb. 27, 1882	Feb. 27, 1882
1863	Union Marine	Liverpool	T. D. Hornby	W. Gow	E. L. Woods	July 3, 1874	July 3, 1874
1877	United Fire Reinsurance	Manchester	Thos. Brooke	J. N. Lane	Hutchinson & Mann	July 28, 1884	July 28, 1884
1824	United States Fire	New York	W. W. Underhill	G. E. Cock	D. L. Beck & Sons	April 7, 1882	April 7, 1882
1860	Universal Marine	London	Sir. J. Lubbock	A. Tozer	W. B. Chapman	October 4, 1877	October 4, 1877
1872	Washington Fire and Marine	Boston	I. Sweetser	A. W. Damon	Geo. D. Dornin	Nov. 1, 1877	Nov. 1, 1877
1837	Westchester Fire	New York	G. R. Crawford	J. Q. Underhill	A. C. Donnell & Co.	March 20, 1885	March 20, 1885
1851	Western	Toronto	A. M. Smith	J. Boomer	Butler & Haldan	Jan. 12, 1877	Jan. 12, 1877
1853	Williamsburg City Fire	Brooklyn	E. Driggs	N. W. Meserole	E. E. Potter	Feb. 4, 1881	Feb. 4, 1881
1862	Yangtsze	Shanghai	C. V. Smith	Russell & Co.	Macondray & Co.	October 23, 1868	Sept. 14, 1866
1868	Pacific Mutual Life	San Francisco	Geo. A. Moore	J. N. Patton		June 24, 1868	Jan. 2, 1868
1820	Ætna Life	Hartford	M. G. Bulkeley	J. L. English	Jno. H. Stevens	March 27, 1879	March 27, 1879
1864	Brooklyn Life	New York	Wm. M. Cole	W. Dutcher	A. J. Bryant	Nov. 11, 1878	Nov. 11, 1878
1846	Connecticut Mutual Life	Hartford	J. L. Greene	W. G. Abbot	Jno. S. Wilkins	June 21, 1880	June 21, 1880
1859	Equitable Life	New York	H. B. Hyde	W. Alexander	W. D. Garland	July 9, 1878	July 9, 1878
1860	Germania Life	New York	H. Wesendonck	C. Doremus	Julius Jacobs	Feb. 11, 1879	Feb. 11, 1879
1866	Hartford Life and Annuity	Hartford	F. R. Foster	Stephen Ball	T. Ellsworth	Nov. 17, 1884	Nov. 17, 1884
1850	Manhattan Life	New York	Henry Stokes	H. Y. Wemple	Jno. Landers	August 2, 1878	August 2, 1878
1845	Mutual Benefit Life	Newark	Amzi Dodd	E. L. Dobbins	J. Munsell, Jr.	Sept. 7, 1880	Sept. 7, 1880
1842	Mutual Life	New York	R. A. McCurdy	W. J. Easton	A. B. Forbes	July 1, 1878	July 1, 1878
1848	National Life	Montpelier, Vt.	Chas. Dewey	Geo. W. Reed	S. A. Mattison	June 21, 1886	June 21, 1886
1835	New England Mutual Life	Boston	B. F. Stevens	J. M. Gibbens	H. K. Field	Sept. 26, 1868	June 17, 1867
1841	New York Life	New York	W. H. Beers	A. H. Welch	A. G. Hawes	August 20, 1878	August 20, 1878
1857	Northwestern Mutual Life	Milwaukee	H. L. Palmer	J. W. Skinner	R. W. Abbott	May 31, 1882	May 31, 1882
1847	Penn Mutual Life	Philadelphia	S. C. Huey	H. C. Brown		April 30, 1883	April 30, 1883
1863	Travelers'	Hartford	J. G. Batterson	R. Dennis	W. W. Haskell	July 19, 1878	July 19, 1878
1848	Union Mutual Life	Portland, Me.	J. E. DeWitt	H. D. Smith	Jabez Howes	Sept. 11, 1868	Sept. 11, 1868
1850	United States Life	New York	T. H. Brosnan	C. P. Fraleigh	J. W. Howell	May 14, 1883	May 14, 1883
1860	Washington Life	New York	W. A. Brewer, Jr.	C. Munn	Jno. H. Gray	Feb. 5, 1881	Feb. 5, 1881
	Charter Oak Life	Hartford			Frank Eno	October 30, 1878	October 30, 1878
	Phœnix Mutual Life	Hartford			E. P. Gray	August 26, 1880	August 26, 1880
1885	Pacific Surety	San Francisco	W. Everson	E. F. Green		August 4, 1885	August 4, 1885
1872	Accident Ins. Co. of North America	Montreal	Sir A. T. Galt	E. Rawlings	Brooks & Baldwin	Jan. 3, 1882	Jan. 3, 1882
1883	American Steam Boiler	New York	W. K. Lothrop	V. R. Schenck	Brown, Craig & Co.	October 13, 1884	October 13, 1884
1884	American Surety	New York	R. A. Elmer	H. D. Lyman	Brown, Craig & Co.	Dec. 5, 1884	Dec. 5, 1884
1876	Fidelity and Casualty	New York	W. M. Richards	J. M. Crane	J. R. Garniss	March 4, 1881	March 4, 1881
1866	Hartford Steam Boiler	Hartford	J. M. Allen	J. B. Pierce	Hutchinson & Mann	Nov. 6, 1884	Nov. 6, 1884
1882	Lloyd's Plate Glass	New York	J. G. Beemer	W. T. Woods	Brown, Craig & Co.	March 11, 1885	March 11, 1885
1874	Metropolitan Plate Glass	New York	H. Harteau	J. H. Taylor	Hutchinson & Mann	May 8, 1879	May 8, 1879

ANNUAL STATEMENTS.

ANGLO-NEVADA ASSURANCE CORPORATION.

LOCATED AT SAN FRANCISCO—ORGANIZED NOVEMBER, 1885.

WM. GREER HARRISON, President. C. P. FARNFIELD, Secretary.

Joint stock capital authorized	$2,000,000 00
Joint stock capital paid up in cash	500,000 00

YEAR ENDING DECEMBER 31, 1885.

ASSETS.

Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due	$150,000 00
Interest accrued upon said bonds and mortgages	333 33
Cash in office and in banks	349,791 94
Gross premiums in due course of collection	16,201 17
Total	$516,326 44

LIABILITIES.

Gross premiums on fire risks running one year or less, $14,307 44; unearned premium, 50 per cent	$7,158 72	
Gross premiums on fire risks running more than one year, $741 30; unearned premium, pro rata	617 75	
Gross premiums on marine and inland navigation risks, $3,564 66; unearned premium, 100 per cent	3,564 66	
		$11,341 13
Commissions and brokerage due and to become due		2,237 62
Gross liabilities, except capital stock		$13,578 75
Surples as regards policy holders		$502,747 69
Capital stock paid up in cash		500,000 00
Surplus over paid up capital and all other liabilities		$2,747 69

INCOME.

	Fire.	Marine.	
Net cash actually received for premiums	$2,977 00	$958 69	$3,935 69
Received for interest on stocks, bonds, and loans			1,312 50
Aggregate income received in cash			$5,248 19

EXPENDITURES.

Paid for commissions and brokerage	$119 56
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés	2,420 00
All other payments and expenditures	2,841 37
Aggregate amount of expenditures in cash	$5,380 93

Anglo-Nevada Assurance Corporation—Continued.

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.	Marine and Inland Risks.	Premiums thereon.
Written during the year	$1,206,693 00	$16,140 09	$628,480 00	$4,014 77
Deduct expirations and cancellations	42,450 00	726 35	421,725 00	434 81
In force at the end of the year	$1,164,243 00	$15,413 74	$206,755 00	$3,579 96
Deduct amount reinsured	25,000 00	365 00	2,520 00	15 30
Net amount in force	$1,139,243 00	$15,048 74	$204,235 00	$3,564 66

CALIFORNIA INSURANCE COMPANY.

Located at San Francisco—Organized February, 1861.

C. T. HOPKINS, President. L. L. BROMWELL, Secretary.

Joint stock capital authorized	$600,000 00
Joint stock capital paid up in cash	600,000 00

YEAR ENDING DECEMBER 31, 1885.

ASSETS.

Value of real estate owned by the company				$135,632 55
Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due				9,000 00
Stocks, bonds, and other securities owned absolutely by the company:				
	Par Value.	Market Value.		
160 United States bonds, 4 per cent	$160,000 00	$198,400 00		
25 Oakland Gas Company bonds	25,000 00	25,750 00		
15 Los Angeles Gas Company bonds	15,000 00	15,750 00		
35 Northern Pacific Railroad bonds	35,000 00	39,900 00		
24 Spring Valley Water Company bonds	24,000 00	29,340 00		
9 Pacific Rolling Mill Company bonds	9,000 00	9,450 00		
272 shares Bank of California stock	27,200 00	44,880 00		
300 shares First National Bank stock	30,000 00	36,000 00		
551 shares Oakland Bank of Savings stock	27,550 00	31,407 00		
200 shares Grangers' Bank stock	20,000 00	12,000 00		
100 shares California Wire Works Company stock	10,000 00	6,000 00		
200 shares Pacific Rolling Mills Company stock	20,000 00	18,000 00		
150 shares Safe Deposit and Trust Company	15,000 00	6,900 00		
200 shares Wells, Fargo & Company stock	20,000 00	24,000 00		
250 shares Geary Street, Park, and Ocean Railroad Company stock	25,000 00	26,125 00		
200 shares London, Paris, and American Bank stock	20,000 00	18,200 00		
500 shares Oakland Gaslight and Heat Company stock	50,000 00	16,750 00		
500 shares Spring Valley Water Company stock	50,000 00	48,000 00		
300 shares Merced Security Savings Bank stock	30,000 00	7,800 00		
Totals	$612,750 00	$614,652 00		614,652 00
Bonds hypothecated to the company as collateral security for cash loaned by the company:				
	Par Value.	Market Value.	Am't Loaned.	
4 bonds California Dry Dock Company	$2,000 00	$2,100 00	$1,000 00	1,000 00
Cash in office and in banks				173,609 78
Interest due and accrued on stocks, not included in "market value," savings banks, etc.				10,474 57
Interest due and accrued on collateral loans				72 00
Gross premiums in due course of collection				53,865 09
Bills receivable, not matured, taken for fire, marine, and inland risks				12,407 53
Total				$1,010,713 52

CALIFORNIA INSURANCE COMPANY—Continued.

LIABILITIES.

Losses adjusted and unpaid	$24,809 00	
Losses resisted	900 00	
		$25,709 00
Gross premiums on fire risks, running one year or less, $281,356 12; unearned premium, 50 per cent	$140,678 06	
Gross premiums on fire risks running more than one year, $107,752 22; unearned premium, pro rata	61,755 16	
Gross premium on marine and inland navigation risks, $4,191 55; unearned premium, 100 per cent	4,191 55	
Gross premium on marine time risks; unearned premium, 50 per cent	25,116 36	
		231,741 13
Commissions and brokerage due and to become due		7,507 97
Gross liabilities, except capital stock		$264,958 10
Surplus, as regards policy holders		$745,755 42
Capital stock paid up in cash		600,000 00
Surplus over paid up capital, and all other liabilities		$145,755 42

INCOME.

	Fire.	Marine.	
Net cash actually received for premiums	$303,284 29	$85,672 32	$388,956 61
Received for interest on bonds and mortgages			557 65
Received for interest and dividends on stocks and bonds			30,742 17
Received for rents			6,970 00
Aggregate income received in cash			$427,226 43

EXPENDITURES.

	Fire.	Marine.	
Gross amount paid for losses, including $35,918 97, losses in previous years	$237,066 12	$27,173 19	$264,239 31
Cash dividends paid stockholders			54,000 00
Paid for commissions and brokerage			51,846 20
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés			30,154 68
Paid for taxes			13,776 12
All other payments and expenditures			43,536 77
Aggregate amount of expenditures in cash			$457,553 08

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.	Marine and Inland Risks.	Premiums thereon.
In force on December 31 of preceding year	$30,954,447 00	$447,037 32	$703,873 00	$48 630 21
Written during the year	32,865,082 00	444,993 53	6,854,253 00	114,854 98
Totals	$63,819,529 00	$892,030 85	$7,558,126 00	$163,485 19
Deduct expirations and cancellations	32,017,111 00	441,099 63	6,392,910 00	94,422 45
In force at the end of the year	$31,802,418 00	$450,931 22	$1,165,216 00	$69,062 74
Deduct amount reinsured	4,202,176 00	61,822 88	269,579 00	14,638 44
Net amount in force	$27,600,242 00	$389,108 34	$895,637 00	$54,424 30

COMMERCIAL INSURANCE COMPANY.

Located at San Francisco—Organized February 26, 1872.

JOHN H. WISE, President. CHARLES A. LATON, Secretary.

Joint stock capital authorized	$200,000 00
Joint stock capital paid up in cash	200,000 00

YEAR ENDING DECEMBER 31, 1885.

ASSETS.

Value of real estate owned by the company	$2,000 00
Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due	190,604 58
Interest due upon said bond and mortgage loans	1,135 69

Stocks and bonds owned absolutely by the company:

	Par Value.	Market Value.	
50 U. S. bonds, 4-20's	$50,000 00	$61,750 00	
16 Shasta County, California, bonds	16,000 00	17,200 00	
50 Rocklin School District bonds	5,000 00	5,100 00	
1,900 shares Merchants' Exchange Bank stock, in liquidation	190,000 00	39,900 00	
205 shares Spring Valley Waterworks stock	20,500 00	19,680 00	
120 shares North Beach and Mission Railroad Company stock	12,000 00	12,000 00	
	$293,500 00	$155,630 00	155,630 00

Stocks hypothecated to the company as collateral security for cash loaned by the company:

	Par Value.	Market Value.	Am't Loaned.	
120 shares California Furniture Manufacturing Company	$12,000 00	$12,000 00	$4,000 00	4,000 00

Indorsed commercial notes	950 00
Cash in office and banks	28,669 50
Interest due and accrued on stocks, not included in "market value"	979 16
Interest due and accrued on collateral loans	16 15
Gross premiums in hands of agents and in course of collection	65,444 63
Bills receivable, not matured, taken for fire, marine, and inland risks	7,411 00
Total	$456,840 71

LIABILITIES.

Losses in process of adjustment		$11,499 31
Gross premiums on fire risks, running one year or less, $257,934 10; unearned premium, 50 per cent	$128,967 05	
Gross premiums on fire risks, running more than one year, $27,889 19; unearned premium, pro rata	17,691 35	
Gross premiums on marine and inland navigation risks, $1,031 26; unearned premium, 100 per cent	1,031 26	
Gross premiums on marine time risks, $19,330 50; unearned premium, 50 per cent	9,665 25	
		157,354 91
Commissions and brokerage due and to become due		2,750 00
Return premiums		1,802 77
Total liabilities, except capital stock		$173,406 99
Surplus as regards policy holders		$283,433 72
Capital stock, paid up in cash		200,000 00
Surplus, over paid up capital and all other liabilities		$83,433 72

COMMERCIAL INSURANCE COMPANY—Continued.

INCOME.	Fire.	Marine.	
Net cash received for premiums	$320,512 27	$33,977 66	$354,489 93
Received for interest on bonds and mortgages			14,598 12
Received for interest on stocks and bonds and collateral loans			5,938 36
Received for discounts on losses			349 81
Aggregate income received in cash			$375,376 22

EXPENDITURES.	Fire.	Marine.	
Amount paid for losses, including $26,493 00 losses in previous years	$195,747 23	$17,388 43	$213,135 66
Cash dividends paid stockholders			24,000 00
Paid for commissions and brokerage			67,760 00
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés			26,829 50
Paid for taxes			6,543 25
All other payments and expenditures			23,485 71
Aggregate amount of expenditures in cash			$361,754 12

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.	Marine and Inland Risks.	Premiums thereon.
In force on December 31 of the preceding year	$15,171,952 00	$270,772 51	$309,801 00	$20,375 72
Written during the year	24,624,543 00	394,738 31	2,567,828 00	41,203 28
Totals	$39,796,495 00	$665,510 82	$2,877,629 00	$61,579 00
Deduct expirations and cancellations	20,808,009 00	368,887 12	2,596,588 00	41,067 24
In force at the end of the year	$18,988,486 00	$296,623 70	$281,041 00	$20,511 76
Deduct amount reinsured	571,826 00	10,800 41	1,500 00	150 00
Net amount in force	$18,416,660 00	$285,823 29	$279,541 00	$20,361 76

FIREMAN'S FUND INSURANCE COMPANY.

LOCATED AT SAN FRANCISCO—ORGANIZED MAY 3, 1863.

D. J. STAPLES, President. WM. J. DUTTON, Secretary.

Joint stock capital authorized	$750,000
Joint stock capital paid up in cash	750,000

ASSETS.

	Par Value.	Market Value.	
Value of real estate owned by the company			$320,000 00
Loans on bond and mortgage (first liens) upon which not more than one year's interest is due			115,618 00
Interest due and accrued on said bond and mortgage loans			690 98
Stocks and bonds owned by the company:			
United States bonds, registered 4's	$400,000 00	$492,000 00	
Oakland City Gaslight Company bonds	25,000 00	25,500 00	
California Dry Dock Company bonds	20,000 00	21,000 00	
Market Street Cable Railroad Company bonds	25,000 00	30,000 00	
Pacific Rolling Mills bonds	7,000 00	7,280 00	
100 shares First National Bank S. F. stock	10,000 00	12,000 00	
450 shares Oakland Bank of Savings stock (50 per cent paid up)	45,000 00	25,200 00	
100 shares North Beach and Mission R. R. stock	10,000 00	9,900 00	
150 shares Pacific Rolling Mills stock	15,000 00	13,500 00	
250 shares Judson Manufacturing Company stock (45 per cent paid up)	25,000 00	5,000 00	
100 shares California Dry Dock Company stock	10,000 00	4,000 00	
300 shares Presidio and Ferries Railroad Company stock (55 per cent paid up)	30,000 00	13,500 00	
370 shares California Street Railroad Co. stock	37,000 00	35,150 00	
220 shares Sutter Street Railroad Company stock	22,000 00	23,100 00	
15 shares Pioneer Woolen Factory stock	15,000 00	6,000 00	
250 shares Oakland Gaslight and Heat Company stock (20 per cent paid up)	25,000 00	8,500 00	
	$721,000 00	$731,630 00	731,630 00

Stocks, bonds, and other securities, hypothecated to the company as collateral security for cash loaned by the company:

	Par Value.	Market Value.	Am't Loaned.	
2 bonds Pacific Club, San Francisco	$2,000 00	$2,100 00	$1,500 00	
55 shares Bank of Sonoma County stock	5,500 00	6,050 00	5,000 00	
1400 shares Oakland Gaslight and Heat Company stock	140,000 00	47,600 00	30,000 00	
330 shares Bank of Sonoma County stock	33,000 00	36,300 00	26,000 00	
150 shares Savings and Loan Society stock	15,000 00	15,750 00	13,500 00	
130 shares Judson Manufacturing stock	13,000 00	2,600 00	8,500 00	
200 shares California Iron and Steel Company stock	20,000 00	400 00		
130 shares California Artificial Stone Company stock	1,300 00	780 00		
10 shares Knappton Packing Co. stock	1,000 00	1,200 00		
Assigned mortgage on real estate in Alameda County. Land valued $2,500; building, $4,000. Insured for $3,500	3,350 00	3,350 00		
Second mortgage on property in Berkeley	3,000 00	3,000 00		
18 bonds School District No. 7, Gallatin County, Montana	9,000 00	9,000 00	1,900 00	
3 bonds School District No. 1, Lawrence County, Dakota	1,500 00	1,500 00		
5 bonds Choteau County, Montana	5,000 00	5,000 00		
Amount carried forward	$252,650 00	$134,630 00	$86,400 00	$1,207,938 98

FIREMAN'S FUND INSURANCE COMPANY—Continued.

	Par Value.	Market Value.	Am't Loaned.	
Amount brought forward	$252,650 00	$134,630 00	$86,400 00	$1,207,938 98
290 shares Bank of Sonoma County	29,000 00	31,900 00	26,000 00	
Assigned mortgage on real estate in Sonoma County. Land valued $5,000; improvements, $1,000	4,340 00	4,340 00		
Assigned mortgage on real estate in Sonoma County. Land valued $5,500; improvements, $1,200	4,500 00	4,500 00		
Totals	$290,490 00	$175,370 00	$112,400 00	112,400 00
Cash in office and banks				135,113 70
Interest due and accrued on bonds and stocks, not included in "market value"				6,456 36
Interest due and accrued on collateral loans				1,084 20
Gross premiums in due course of collection				108,686 72
Bills receivable, not matured, taken for fire, marine, and inland risks				44,445 04
Rents due and accrued, $260. Due from other companies for reinsurance on losses already paid, $8,812 24				9,072 24
Total				$1,625,197 24

LIABILITIES.

Losses adjusted and unpaid	$14,256 45	
Losses in process of adjustment	46,427 76	
Losses resisted	28,057 91	
Total	$88,742 12	
Deduct reinsurance thereon	6,889 70	81,852 42
Gross premiums on fire risks running one year or less, $538,608 43. Unearned premium, 50 per cent	$269,304 21	
Gross premiums on fire risks running more than one year, $265,592 91. Unearned premium, pro rata	146,678 69	
Gross premiums on marine and inland navigation risks, $18,625 66. Unearned premium, 100 per cent	18,625 66	
Gross premiums on marine time risks, $90,977 28. Unearned premium, 50 per cent	45,488 64	480,097 20
Commissions and brokerage due and to become due		9,433 82
Marine bills payable		2,545 42
Agents' balances		984 59
Total liabilities, except capital stock		$574,913 45
Surplus as regards policy holders		$1,050,283 79
Capital stock paid up in cash		750,000 00
Surplus over capital, and all other liabilities		$300,283 79

INCOME.

	Fire.	Marine.	
Net cash received for premiums during the year	$652,864 30	$189,781 79	$842,646 09
Received for interest on bonds and mortgages, bonds, collateral loans, etc.			18,644 05
Received for interest and dividends on stock			24,754 33
Received for rents			21,473 32
Total cash income			$907,517 79

EXPENDITURES.

	Fire.	Marine.	
Paid during the year for losses, including $78,777 86, losses of previous years	$294,754 46	$147,457 24	$442,211 70
Cash dividends paid stockholders			90,000 00
Paid for commissions and brokerage			106,166 12
Salaries, fees, and other charges of officers, clerks, agents, and all other employés			81,784 91
Paid for taxes			12,164 29
All other payments and expenditures			97,782 99
Total cash expenditures			$830,110 01

FIREMAN'S FUND INSURANCE COMPANY—Continued.

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.	Marine and Inland Risks.	Premiums thereon.
In force on December 31 of preceding year	$55,560,738 00	$761,569 37	$2,810,776 00	$143,336 91
Written during the year	62,339,413 00	878,018 47	16,033,133 00	328,314 15
Totals	$117,900,151 00	$1,639,587 84	$18,843,909 00	$471,651 06
Deduct expirations and cancellations	53,764,672 00	742,836 60	16,003,980 00	315,015 19
In force at the end of the year	$64,135,479 00	$896,751 24	$2,839,929 00	$156,635 87
Deduct amount reinsured	4,813,246 00	92,549 90	980,775 00	47,032 93
Net amount in force	$59,322,233 00	$804,201 34	$1,859,154 00	$109,602 94

HOME MUTUAL INSURANCE COMPANY.

LOCATED AT SAN FRANCISCO—ORGANIZED SEPTEMBER, 1864.

J. F. HOUGHTON, President. CHARLES R. STORY, Secretary.

Joint stock capital authorized	$300,000 00
Joint stock capital paid up in cash	300,000 00

YEAR ENDING DECEMBER 31, 1885.

ASSETS.				
Value of real estate owned by the company				$169,025 00
Loans on bonds and mortgages (first liens), upon which not more than one year's interest is due				240,239 13
Interest due and accrued on all said bond and mortgage loans				4,378 21
Stocks, bonds, and other securities owned by the company:				
	Par Value.	Market Value.		
United States bonds, registered 4's	$115,000 00	$141,450 00		
Bonds of Stanislaus County, California	33,000 00	35,574 00		
Bonds of Alameda County, California	8,000 00	8,640 00		
Warrants of Jefferson County, Colorado	4,871 52	5,876 33		
	$160,871 52	$191,540 33		191,540 33
Stocks and bonds hypothecated to the company as collateral security for cash loaned by the company:				
	Par Value.	Market Value.	Am't Loaned.	
100 shares Central Land Company stock	$10,000 00	$8,000 00	$4,000 00	
225 shares Merced Security Savings Bank stock	22,500 00	5,625 00		
50 shares Central Land Company stock	5,000 00	4,000 00	1,250 00	
400 shares Commercial Bank of San José stock	40,000 00	20,000 00	11,000 00	
266 shares San José and Santa Clara Horse Railroad Company stock	26,600 00	21,280 00	7,500 00	
170 shares Pacific Gas Improvement Company stock	17,000 00	6,800 00	13,000 00	
20 shares San Francisco Savings Union stock	5,000 00	9,000 00		
	$126,100 00	$74,705 00	$36,750 00	36,750 00
Cash in office and in banks				114,643 76
Amount carried forward				$756,576 43

Fireman's Fund Insurance Company—Continued.

Amount brought forward		$756,576 43
Interest due and accrued on bonds and stocks, not included in "market value"		500 00
Interest due and accrued on collateral loans and bank deposits		1,224 30
Net premiums in due course of collection		67,254 20
Cash in hands of agents		10,714 09
Total		$836,269 02

LIABILITIES.

Losses adjusted and unpaid	$2,625 00	
Losses in process of adjustment	5,360 00	
Losses resisted	5,200 00	
		$13,185 00
Gross premiums on fire risks running one year or less, $222,109 49; unearned premium, 50 per cent	$111,054 75	
Gross premiums on fire risks running more than one year, $181,607 94; unearned premium, pro rata	93,893 51	
		204,948 26
Net amount due and to become due for reinsurance of the business of the Western Department of this company		82,147 83
Cash dividends remaining unpaid		2,723 00
Due and accrued for salaries, rent, etc.		300 00
Due and to become due for taxes		678 30
Total liabilities, except capital stock		$303,982 39
Surplus as regards policy holders		$532,286 63
Capital stock, paid up in cash		300,000 00
Surplus over capital, and all other liabilities		$232,286 63

INCOME.

Net cash received for premiums during the year	$487,746 59
Received for interest on bonds and mortgages, bonds, collateral loans, and from all other sources	31,680 69
Received for rents	3,719 05
Total cash income	$523,146 33

EXPENDITURES.

Amount paid for losses, including $24,146 27, losses in previous years	$289,951 44
Cash dividends paid stockholders	36,000 00
Paid for commissions and brokerage	135,305 30
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés	37,047 50
Paid for taxes	6,781 48
All other payments and expenditures	60,358 07
Total cash expenditures	$565,443 79

RISKS AND PREMIUMS.

	Fire Risks.	Premiums on same.
In force on December 31 of the preceding year	$33,595,519 00	$527,334 27
Written during the year	36,350,210 00	585,377 04
Totals	$69,945,729 00	$1,112,711 31
Deduct expirations and cancellations	30,345,505 00	474,653 10
In force at the end of the year	$39,600,224 00	$638,058 21
Deduct amount reinsured	15,072,860 00	234,340 78
Net amount in force	$24,527,364 00	$403,717 43

OAKLAND HOME INSURANCE COMPANY.

Located at Oakland, California—Organized January 16, 1880.

WM. P. JONES, President. WM. F. BLOOD, Secretary.

Joint stock capital authorized	$200,000 00
Joint stock capital paid up in cash	200,000 00

YEAR ENDING DECEMBER 31, 1885.

ASSETS.

	Par Value.	Market Value.	
Value of real estate owned by the company			$90,000 00
Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due			61,168 00
Interest due and accrued on all said bond and mortgage loans			719 35
Bonds owned by the company:			
U. S. bonds 4½ per cent	$50,000 00	$56,375 00	56,375 00
Cash in office and banks			49,153 83
Interest due and accrued on bonds, not included in "market value"			187 50
Interest due and accrued on bank deposits			533 00
Gross premiums in due course of collection			48,939 26
Commissions due from other companies			1,917 55
Due from other companies for premiums and reinsurance			13,099 79
Total			$322,093 28

LIABILITIES.

Losses adjusted and unpaid	$5,009 15	
Losses in process of adjustment	3,891 42	
		$8,900 57
Gross premiums on fire risks running one year or less, $114,505 27; unearned premium, 50 per cent	57,257 63	
Gross premiums on fire risks running more than one year, $62,714 82; unearned premium, pro rata	32,780 42	90,038 05
Cash dividends remaining unpaid		555 00
Commissions and brokerage due and to become due		3,695 25
Due to other companies for premiums and reinsurance		7,644 61
Total liabilities, except capital stock		$110,833 48
Surplus as regards policy holders		$211,259 80
Capital stock paid up in cash		200,000 00
Surplus over capital and all other liabilities		$11,259 80

INCOME.

Net cash received for premiums during the year	$148,552 71
Received for interest on bonds and mortgages	7,549 99
Received for interest on bonds	2,250 00
Received for rents	5,155 00
Total cash income	$163,507 70

EXPENDITURES.

Paid for losses (including $7,233 70, losses in previous years)	$87,928 37
Cash dividends paid stockholders	12,294 50
Paid for commissions and brokerage	24,816 51
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés	28,635 50
Paid for taxes	4,631 64
All other payments and expenditures	21,927 47
Total cash expenditures	$180,233 99

Oakland Home Insurance Company—Continued.

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.
In force on December 31 of the preceding year	$10,826,029 00	$163,319 02
Written during the year	12,510,102 00	213,425 58
Totals	$23,336,131 00	$376,744 60
Deduct expirations and cancellations	10,263,189 00	170,004 86
In force at the end of the year	$13,072,942 00	$206,739 74
Deduct amount reinsured	1,722,631 00	29,410 00
Net amount in force	$11,350,311 00	$177,329 74

SOUTHERN CALIFORNIA INSURANCE COMPANY.

Located at Los Angeles, California—Organized February, 1885.

H. C. SIGLER, President. MATTHEW LONG, Secretary.

Joint stock capital authorized	$200,000 00
Joint stock capital paid up in cash	101,325 00

YEAR ENDING DECEMBER 31, 1885.

ASSETS.

Loans on bond and mortgage (first liens) upon which not more than one year's interest is due	$92,198 00
Interest due and accrued on all said bond and mortgage loans	1,900 80
Cash in office and banks	28,501 56
Gross premiums in due course of collection	33,173 09
School order	75 00
Postage stamps and Government envelopes	61 40
Total	$155,909 85

LIABILITIES.

Losses in process of adjustment		$1,000 00
Gross premiums on fire risks, running one year or less, $57,289 32; unearned premium, 50 per cent	$28,644 66	
Gross premiums on fire risks, running more than one year, $17,846 25; unearned premium, pro rata	14,977 39	43,622 05
Commissions and brokerage due and to become due		3,980 77
Bills payable		250 54
Total liabilities, except capital stock		$48,753 36
Surplus as regards policy holders		$107,156 49
Capital stock paid up in cash		101,325 00
Surplus over paid up capital and all other liabilities		$5,831 49

INCOME.

Net cash received for premiums	$83,059 31
Received for interest on bonds and mortgages	3,084 38
Total cash income	$86,143 69

SOUTHERN CALIFORNIA INSURANCE COMPANY—Continued.

EXPENDITURES.	
Amount paid for losses	$9,469 94
Paid for commissions and brokerage	13,539 54
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés	9,263 64
Paid for taxes	222 69
All other payments and expenditures	6,966 53
Total cash expenditures	$39,462 34

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.
Written during the year	$5,368,796 00	$101,446 44
Deduct expirations and cancellations	863,777 00	16,826 92
In force at the end of the year	$4,505,019 00	$84,619 52
Deduct amount reinsured	316,232 00	9,483 95
Net amount in force	$4,188,787 00	$75,135 57

STATE INVESTMENT AND INSURANCE COMPANY.

LOCATED AT SAN FRANCISCO—ORGANIZED DECEMBER 31, 1871.

A. J. BRYANT, President. CHARLES H. CUSHING, Secretary.

Joint stock capital authorized	$200,000 00
Joint stock capital paid up in cash	200,000 00

YEAR ENDING DECEMBER 31, 1885.

ASSETS.	Par Value.	Market Value.	
Value of real estate belonging to the company			$150,859 13
Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due			72,515 00
Interest due and accrued on all said bond and mortgage loans			354 00
Bonds owned by the company:			
United States bonds, 4 per cent	$50,000 00	$62,000 00	
Sonoma County bonds, 6 per cent	10,000 00	10,800 00	
Montgomery Avenue bonds, 6 per cent	10,000 00	3,000 00	
	$70,000 00	$75,800 00	75,800 00
Cash in office and in banks			8,523 27
Interest due and accrued on bonds, not included in "market value"			1,160 00
Gross premiums in due course of collection			33,464 86
Rents due and accrued			65 00
Salvage due on losses already paid			3,035 03
Total			$345,776 29

State Investment and Insurance Company—Continued.

LIABILITIES.

Losses in process of adjustment	$3,969 02	
Losses resisted	3,173 80	
		$7,142 82
Gross premiums on fire risks, running one year or less, $119,539 58; unearned premium, 50 per cent	$59,769 79	
Gross premiums on fire risks, running more than one year, $40,727 92; unearned premium, pro rata	22,024 12	
		81,793 91
Cash dividends remaining unpaid		1,041 00
Commissions and brokerage due and to become due		1,005 68
Amount due First National Bank		94 37
Total liabilities, except capital stock		$91,077 78
Surplus as regards policy holders		$254,698 51
Capital stock paid up in cash		200,000 00
Surplus over capital and all other liabilities		$54,698 51

INCOME.

Net cash received for premiums	$146,778 36
Received for interest on bond and mortgage loans	4,465 80
Received for interest on bonds, and from other sources	3,709 86
Received for rents	11,086 00
Total cash income	$166,040 02

EXPENDITURES.

Amount paid for losses, including $17,557 51, losses of previous years	$99,751 44
Cash dividends paid stockholders	23,389 00
Paid for commissions and brokerage	31,043 19
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés	15,170 00
Paid for taxes	2,094 03
All other payments and expenditures	19,548 58
Total cash expenditures	$190,996 24

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.
In force on December 31 of the preceding year	$14,906,683 00	$234,861 82
Written during the year	9,666,679 00	156,430 56
Totals	$24,573,362 00	$391,292 38
Deduct expirations and cancellations	14,537,728 00	228,200 13
In force at the end of the year	$10,035,634 00	$163,092 25
Deduct amount reinsured	182,500 00	2,824 75
Net amount in force	$9,853,134 00	$160,267 50

SUN INSURANCE COMPANY.

LOCATED AT SAN FRANCISCO—ORGANIZED FEBRUARY 1, 1882.

C. L. TAYLOR, President. E. E. POTTER, Secretary.

Joint stock capital authorized	$300,000 00
Joint stock capital paid up in cash	300,000 00

YEAR ENDING DECEMBER 31, 1885.

ASSETS.

	Par Value.	Market Value.	
Value of real estate owned by the company			$90,000 00
Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due			180,211 00
Interest accrued on all said bond and mortgage loans			2,431 30
Bonds owned by the company:			
U. S. bonds, 3 per cent	$50,000 00	$52,000 00	
Merced County (Cal.) bonds, 5 per cent	34,500 00	34,898 50	
Stockton City bonds, 6 per cent	40,000 00	42,000 00	
	$124,500 00	$128,898 50	128,898 50
Cash in office and in banks			17,619 03
Interest due and accrued on bonds not included in "market value"			2,312 50
Gross premiums in due course of collection			37,573 09
Bills receivable, not matured, taken for fire, marine, and inland risks			9,333 33
Rents due and accrued			375 00
Cash due from agency companies			1,742 85
Total			$470,496 60

LIABILITIES.

Losses in process of adjustment	$7,360 00	
Losses resisted	1,100 00	
		$8,460 00
Gross premiums on fire risks, running one year or less, $130,773 12; unearned premium, 50 per cent	$65,386 56	
Gross premiums on fire risks, running more than one year, $34,237 84; unearned premium, pro rata	20,585 21	
Gross premiums on marine and inland navigation risks, $2,812 19; unearned premium, 100 per cent	2,812 19	
Gross premiums on marine time risks; unearned premium, 50 per cent	19,508 18	
		108,292 04
Commissions and brokerage due and to become due		3,416 08
Total liabilities, except capital stock		$120,168 12
Surplus as regards policy holders		$350,328 48
Capital stock paid up in cash		300,000 00
Surplus over capital and all other liabilities		$50,328 48

INCOME.

	Fire.	Marine.	
Net cash received for premiums	$146,301 61	$61,670 46	$207,972 07
Received for interest on bonds and mortgages			14,075 40
Received for interest on bonds and from other sources			4,535 04
Received for rents			5,574 00
Total cash income			$232,156 51

Sun Insurance Company—Continued.

EXPENDITURES.

	Fire.	Marine.	
Paid for losses, including $13,653 22 losses of previous years	$86,678 81	$34,900 87	$121,579 68
Cash dividends paid stockholders			22,500 00
Paid for commissions and brokerage			31,608 56
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés			28,825 64
Paid for taxes			2,929 99
All other payments and expenditures			21,486 05
Total cash expenditures			$228,929 92

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.	Marine and Inland Risks.	Premiums thereon.
In force at the end of the preceding year	$11,577,886 00	$157,994 32	$1,162,302 00	$42,262 39
Written during the year	15,027,653 00	217,476 00	2,254,842 00	70,587 04
Totals	$26,605,539 00	$375,470 32	$3,417,144 00	$112,849 43
Deduct expirations and cancellations	13,945,636 00	187,591 19	2,571,623 00	64,794 50
In force at the end of the year	$12,659,903 00	$187,879 13	$845,521 00	$48,054 93
Deduct amount reinsured	1,438,075 00	22,868 17	233,724 00	6,226 47
Net amount in force	$11,221,828 00	$165,010 96	$611,797 00	$41,828 46

UNION INSURANCE COMPANY.

Located at San Francisco—Organized April 28, 1865.

GUSTAVE TOUCHARD, President. JAS. D. BAILEY, Secretary.

Joint stock capital authorized	$750,000 00
Joint stock capital paid up in cash	750,000 00

YEAR ENDING DECEMBER 31, 1885.

ASSETS.

	Par Value.	Market Value.	
Value of real estate owned by the company			$110,000 00
Loans on bonds and mortgages (first liens), upon which not more than one year's interest is due			203,699 47
Interest due on all said bonds and mortgage loans			1,200 00
Bonds owned by the company:			
U. S. bonds, 4 per cent	$500,000 00	$615,000 00	
Oakland City bonds, California	8,000 00	10,000 00	
Alameda Town bonds, California	10,000 00	11,000 00	
Montgomery Avenue bonds	120,000 00	36,000 00	
	$638,000 00	$672,000 00	672,000 00
Amount carried forward			$986,899 47

UNION INSURANCE COMPANY—Continued.

	Par Value.	Market Value.	Am't Loaned.	
Amount brought forward				$986,899 47
Stocks hypothecated to the company, as collateral security, for cash loaned by the company:				
111 shares Spring Valley Waterworks stock	$11,100 00	$10,656 00	$35,000 00	$35,000 00
400 shares Presidio and Ferries R. R. Co. stock	40,000 00	18,400 00		
125 shares San Francisco Gaslight Co. stock	12,500 00	6,875 00		
60 shares Bank of California stock	6,000 00	9,900 00		
	$69,600 00	$45,831 00		
Cash in office and in banks				63,289 19
Gross premiums in due course of collection				29,164 70
Bills receivable, not matured, taken for fire, marine, and inland risks				11,610 80
Total				$1,125,964 16

LIABILITIES.

Losses adjusted and unpaid	$8,026 29	
Losses in process of adjustment	16,494 00	
Losses resisted	4,000 00	$28,520 29
Gross premiums on fire risks, running one year or less, $275,528 21; unearned premium, 50 per cent	137,764 10	
Gross premiums on fire risks, running more than one year, $124,413 01; unearned premium, pro rata	66,798 82	
Gross premiums on marine and inland navigation risks, $7,408 65; unearned premium, 100 per cent	7,408 65	
Gross premiums on marine time risks; unearned premium, 50 per cent	14,920 00	226,891 57
Unused balances of bills and notes, taken in advance for premiums on open marine policies		2,246 23
Cash dividends remaining unpaid		582 00
Commissions and brokerage due and to become due		1,600 00
Total liabilities, except capital stock		$259,840 09
Surplus as regards policy holders		$866,124 07
Capital stock paid up in cash		750,000 00
Surplus over capital and all other liabilities		$116,124 07

INCOME.

	Fire.	Marine.	
Net cash received for premiums	$345,316 25	$86,170 18	$431,486 43
Received for interest on bonds and mortgages			13,835 09
Received for interest on bonds, and from other sources			23,119 15
Received for rents			8,902 00
Total cash income			$477,342 67

EXPENDITURES.

	Fire.	Marine.	
Paid for losses, including $49,833 98 losses of previous years	$159,986 87	$68,901 90	$228,888 77
Cash dividends paid stockholders			59,628 00
Paid for commissions and brokerage			84,358 44
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés			41,598 83
Paid for taxes			12,235 91
All other payments and expenditures			34,734 71
Total cash expenditures			$461,444 66

UNION INSURANCE COMPANY—Continued.

RISKS AND PREMIUMS.

	Fire Risks.	Premiums thereon.	Marine and Inland Risks.	Premiums thereon.
In force on December 31 of the preceding year	$26,582,929 00	$359,658 56	$956,492 00	$37,513 30
Written during the year	31,240,027 00	390,234 48	9,472,571 00	112,355 55
Totals	$57,822,956 00	$749,893 04	$10,429,063 00	$149,868 85
Deduct expirations and cancellations	27,302,700 00	339,285 32	9,493,387 00	107,906 40
In force at the end of the year	$30,520,256 00	$410,607 72	$935,676 00	$41,962 45
Deduct amount reinsured	795,458 00	10,666 50	127,040 00	4,713 75
Net amount in force	$29,724,798 00	$399,941 22	$808,636 00	$37,248 70

PACIFIC MUTUAL LIFE INSURANCE COMPANY.

LOCATED AT SAN FRANCISCO—ORGANIZED DECEMBER 28, 1867.

GEORGE A. MOORE, President.	J. N. PATTON, Secretary.

Joint stock capital paid up in cash	$100,000 00

YEAR ENDING DECEMBER 31, 1885.

INCOME.

Cash received for premiums for first year's insurance	$71,358 14	
Cash received for premiums for subsequent year's insurance	288,350 87	
Total	$359,709 01	
Deduct amount paid for reinsurance	842 40	
		$358,866 61
Received for interest on mortgage loans		61,177 14
Received for interest on bonds and dividends on stocks		528 48
Received for interest on premium notes		3,886 48
Received for interest on other debts due the company		1,622 63
Received for registered policy fees		58 00
Total income		$426,139 34

DISBURSEMENTS.

Paid for losses and additions	$151,253 91
Paid for matured endowments and additions	24,630 96
Paid to annuitants	600 00
Paid for surrendered policies	65,430 00
Paid for dividends to policy holders	29,793 83
Paid for dividends to stockholders	10,945 00
Paid for commissions to agents	27,708 29
Paid for salaries and traveling expenses of managers of agencies and agents	16,136 58
Paid for medical examiners' fees	2,698 50
Paid for salaries and other compensations of officers and other office employés	21,388 19
Paid for taxes	1,098 91
Paid for rent	2,587 35
Paid for furniture and fixtures	301 94
Paid for advertising	2,260 72
Paid for printing and stationery, postage, legal fees, and miscellaneous items	11,134 24
Loss and gain	245 61
Total disbursements	$368,214 03

PACIFIC MUTUAL LIFE INSURANCE COMPANY--Continued.

ASSETS.		
Cost value of real estate, exclusive of incumbrances		$157,528 04
Loans on bonds and mortgages (first liens) on real estate		831,312 25
Loans secured by pledge of bonds, stocks, or other marketable collaterals		5,544 24
Premium notes on policies in force		64,100 84
Loans made in cash to policy holders on this company's policies, assigned as collateral		19,621 78
Cash value of bonds and stocks		6,958 39
Cash in office and in banks		121,408 95
Merchandise		4,749 93
Interest due and accrued bond and mortgage loans		52,069 23
Interest accrued on bonds and stocks		169 50
Interest accrued on collateral loans		1,288 95
Interest accrued on premium notes		6,636 87
Gross premiums due and unreported on policies in force December 31, 1885	$54,834 03	
Gross deferred premiums on policies in force December 31, 1885	14,034 66	
Total	$68,868 69	
Deduct loading on above gross amount	14,502 89	
		54,365 80
Total admitted assets		$1,325,754 77
LIABILITIES.		
Claims for death losses and matured endowments in process of adjustment		$17,500 00
Net present value of all the outstanding policies in force on December 31, 1885, computed according to the American experience table of mortality, with 4½ per cent interest		1,156,333 00
Total liabilities		$1,173,833 00
Surplus as regards policy holders		151,921 77
PREMIUM NOTE ACCOUNT.		
Premium notes on hand December 31 of preceding year	$58,548 40	
Premium notes received during the year	55,440 59	
		$113,988 99
Deductions during the year as follows:		
Premium notes used in payment of losses and claims	$2,238 13	
Premium notes used in purchase of surrendered policies	8,757 40	
Premium notes used in payment of dividends to policy holders	1,457 08	
Premium notes redeemed by makers, in cash	36,243 03	
		49,888 15
Balance of premium notes at the end of the year		$64,100 84

PACIFIC MUTUAL LIFE INSURANCE COMPANY—Continued.

EXHIBIT OF POLICIES.

	WHOLE LIFE POLICIES.		ENDOWMENT POLICIES.		ALL OTHER POLICIES.		TOTAL NUMBER AND AMOUNTS.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
Policies and additions in force at the end of the previous year	2,426	$6,579,633	306	$718,022	271	$585,500	3,003	$7,883,155
New policies issued	2,774	7,313,196	130	257,114	------	----------	2,904	7,570,310
Old policies revived	3	14,000	2	2,000	------	----------	5	16,000
Old policies increased	------	----------	------	----------	------	55,300	------	55,300
Additions by dividends during the year	------	7,000	------	2,389	------	----------	------	9,389
Totals	5,203	$13,913,829	438	$979,525	271	$640,800	5,912	$15,534,154
Deduct policies ceased to be in force:								
By death	47	$133,602	2	$9,596	3	$5,000	52	$148,198
By maturity (end'mt)	------	----------	23	22,969	------	----------	23	22,969
By expiry (term)	632	2,091,000	------	----------	------	----------	632	2,091,000
By surrender	138	427,500	20	42,000	3	11,000	161	480,500
By lapse	162	522,000	39	90,000	18	38,000	219	650,000
By change and decrease	1	33,500	------	2,000	3	6,500	4	42,000
Not taken	256	466,000	3	6,000	------	----------	259	472,000
Total terminated	1,236	$3,673,602	87	$172,565	27	$60,500	1,350	$3,906,667
Net numbers and amounts in force at the end of the year	3,967	$10,240,227	351	$806,960	244	$580,300	4,562	$11,627,487
Policies reinsured	2	$28,471	------	----------	------	----------	2	$28,471

PACIFIC SURETY COMPANY.

Located at San Francisco—Organized May 6, 1885.

WALLACE EVERSON, President. E. F. GREEN, Secretary.

Joint stock capital authorized	$100,000
Joint stock capital paid up in cash	46,875

YEAR ENDING DECEMBER 31, 1885.

ASSETS.	
Loans on bonds and mortgages (first liens) upon which not more than one year's interest is due	$18,800 00
Interest due and accrued on all said bond and mortgage loans	220 22
Cash in office and in banks	26,656 12
Interest due and accrued on deposits in savings banks	393 75
Gross premiums in due course of collection	774 00
Rents due and accrued	10 00
Total	$46,854 09
LIABILITIES.	
Gross premiums on all risks running one year or less, $2,909 39; unearned premium, 50 per cent	$1,454 69
Due and accrued for salaries, rent, etc.	350 00
Total liabilities, except capital stock	$1,804 69
Surplus as regards policy holders	45,049 40
Capital stock paid up in cash	46,875 00
INCOME.	
Net cash received for premiums	$2,174 39
Received from all other sources	136 25
Total cash income	$2,310 64
EXPENDITURES.	
Paid for commissions and brokerage	$80 15
Salaries, fees, and all other charges of officers, clerks, agents, and all other employés	1,900 00
All other payments and expenditures	1,749 37
Total cash expenditures	$3,729 52

RISKS AND PREMIUMS.

	Risks.	Premiums thereon.
Written during the year	$296,133 00	$2,948 39
Deduct expirations and cancellations	3,900 00	39 00
In force at the end of the year	$292,233 00	$2,909 39

Table No. 12.

Summary of Assets, Liabilities, Income, Expenditures, etc., of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885—California Companies.

Name.	Location.	Cash Capital Paid Up.	Assets.	Liabilities, Capital not Included.	Income.	Expenditures.	Losses Incurred during the Year.	Net Surplus.
Anglo-Nevada	San Francisco	$500,000 00	$516,326 44	$13,578 75	$5,248 19	$5,380 93	----------	$2,747 69
California	San Francisco	600,000 00	1,010,713 52	264,958 10	427,226 43	457,553 08	$251,029 34	145,755 42
Commercial	San Francisco	200,000 00	456,840 71	173,403 99	375,376 22	361,751 12	198,141 75	83,433 72
Fireman's Fund	San Francisco	750,000 00	1,625,197 21	574,913 45	907,517 79	830,110 01	444,819 94	300,283 79
Home Mutual	San Francisco	300,000 00	836,269 02	303,982 39	523,146 33	565,443 79	277,777 89	232,286 63
Oakland Home	Oakland	200,000 00	322,093 28	110,833 48	163,507 70	180,233 99	90,153 82	11,259 80
Southern California	Los Angeles	101,325 00	155,909 85	48,753 36	86,143 69	39,462 34	10,469 94	5,831 49
State Investment	San Francisco	200,000 00	345,776 29	91,077 78	166,040 02	190,995 24	86,836 75	51,698 51
Sun	San Francisco	300,000 00	470,496 60	120,168 12	232,156 51	228,929 92	116,686 46	50,328 48
Union	San Francisco	750,000 00	1,125,964 16	259,840 09	477,342 67	461,444 66	207,575 08	116,124 07
Totals		$3,901,325 00	$6,865,587 11	$1,931,512 51	$3,363,705 55	$3,321,309 08	$1,683,490 97	$1,002,749 60

TABLE NO. 13.

Showing the various items composing the Assets of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885—California Companies.

NAME.	Location.	Real Estate.	Loans on Bonds and Mortgages.	Stocks and Bonds Owned by the Company.	Loans on Stocks and other Securities as Collateral.	Cash in Office and Banks.
Anglo-Nevada	San Francisco		$150,000 00			$349,791 94
California	San Francisco	$135,632 55	9,000 00	$614,652 00	$1,000 00	173,609 78
Commercial	San Francisco	2,000 00	190,604 58	155,630 00	4,000 00	28,669 50
Fireman's Fund	San Francisco	320,000 00	155,618 00	731,630 00	112,400 00	135,113 70
Home Mutual	San Francisco	169,025 00	240,239 13	191,540 33	36,750 00	114,643 76
Oakland Home	Oakland	90,000 00	61,168 00	56,375 00		49,153 83
Southern California	Los Angeles		92,198 00			28,501 56
State Investment	San Francisco	150,859 13	72,515 00	75,800 00		8,523 27
Sun	San Francisco	90,000 00	180,211 00	128,898 50		17,619 03
Union	San Francisco	110,000 00	203,699 47	672,000 00	35,000 00	63,289 19
Totals		$1,067,516 68	$1,355,253 18	$2,626,525 83	$189,150 00	$968,915 56

NAME.	Location.	Interest Due and Accrued.	Premiums in Course of Collection.	Bills Receivable not Matured, taken for Marine and Inland Risks.	All Other Assets.	Total Assets.
Anglo-Nevada	San Francisco	$333 33	$16,201 17			$516,326 44
California	San Francisco	10,546 57	53,865 09	$12,407 53		1,010,713 52
Commercial	San Francisco	2,131 00	65,444 63	7,411 00	$950 00	456,840 71
Fireman's Fund	San Francisco	8,231 54	108,686 72	44,445 04	9,072 24	1,625,197 24
Home Mutual	San Francisco	6,102 51	67,254 20		10,714 09	836,269 02
Oakland Home	Oakland	1,439 85	48,939 26		15,017 34	322,093 28
Southern California	Los Angeles	1,900 80	33,173 09		136 40	155,909 85
State Investment	San Francisco	1,514 00	33,464 86		3,100 03	345,776 29
Sun	San Francisco	4,743 80	37,573 09	9,333 33	2,117 85	470,496 60
Union	San Francisco	1,200 00	29,164 70	11,610 80		1,125,964 16
Totals		$38,143 40	$493,766 81	$85,207 70	$41,107 95	$6,865,587 11

TABLE NO. 14.

Showing the various items composing the Liabilities, except Capital Stock, of Fire and Marine Insurance Companies doing business in California, on the thirty-first day of December, 1885—California Companies.

NAME.	Location.	Losses Adjusted.	Losses Unadjusted.	Losses Resisted.	Cash Dividends Remaining Unpaid.	Fire Reinsurance.
Anglo-Nevada	San Francisco					$7,776 47
California	San Francisco	$24,809 00		$900 00		202,433 22
Commercial	San Francisco		$11,499 31			146,658 40
Fireman's Fund	San Francisco	14,256 45	39,538 06	28,057 91		415,982 90
Home Mutual	San Francisco	2,625 00	5,360 00	5,200 00	$2,723 00	287,096 09
Oakland Home	Oakland	5,009 15	3,891 42		555 00	90,038 05
Southern California	Los Angeles		1,000 00			43,622 05
State Investment	San Francisco		3,969 02	3,173 80	1,041 00	81,793 91
Sun	San Francisco		7,360 00	1,100 00		85,971 77
Union	San Francisco	8,026 29	16,494 00	4,000 00	582 00	204,562 92
Totals		$54,725 89	$89,111 81	$42,431 71	$4,901 00	$1,565,935 78

NAME.	Location.	Marine and Inland Reinsurance.	Marine Time Reinsurance.	All other Claims.	Total Liabilities, Capital Stock not Included.	Net Surplus.
Anglo-Nevada	San Francisco	$3,564 66		$2,237 62	$13,578 75	$2,747 69
California	San Francisco	4,191 55	$25,116 36	7,507 97	264,958 10	145,755 42
Commercial	San Francisco	9,665 25	1,031 26	4,552 77	173,406 99	83,433 72
Fireman's Fund	San Francisco	45,488 64	18,625 66	12,963 83	574,913 45	300,283 79
Home Mutual	San Francisco			978 30	303,982 39	232,286 63
Oakland Home	Oakland			11,339 86	110,833 48	11,259 80
Southern California	Los Angeles			4,131 31	48,753 36	5,831 49
State Investment	San Francisco			1,100 05	91,077 78	54,698 51
Sun	San Francisco	2,812 09	19,508 18	3,416 08	120,168 12	50,328 48
Union	San Francisco	7,408 65	14,920 00	3,846 23	259,840 09	116,124 07
Totals		$73,130 84	$79,201 46	$52,074 02	$1,961,512 51	$1,002,749 60

TABLE No. 15.

Showing the various items composing the Incomes of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885—California Companies.

NAME.	Location.	Fire Premiums.	Marine and Inland Premiums.	Interest on Bonds and Mortgages.	Interest and Dividends from other sources.	Rents.	From all other sources.	Total Income.
Anglo-Nevada	San Francisco	$2,977 00	$958 69		$1,312 50			$5,248 19
California	San Francisco	303,284 29	85,672 32	$557 65	30,742 17	$6,970 00		427,226 43
Commercial	San Francisco	320,512 27	33,977 66	14,598 12	5,938 36		$349 81	375,376 22
Fireman's Fund	San Francisco	652,864 30	189,781 79	18,644 05	21,754 33	21,473 32		907,517 79
Home Mutual	San Francisco	487,746 59		31,680 69		3,719 05		523,146 33
Oakland Home	Oakland	148,552 71		7,549 99	2,250 00	5,155 00		163,507 70
Southern California	Los Angeles	83,059 31		3,084 38				86,143 69
State Investment	San Francisco	146,778 36		4,465 80	3,709 86	11,086 00		166,040 02
Sun	San Francisco	146,301 61	61,670 46	14,075 40	4,535 04	5,574 00		232,156 51
Union	San Francisco	345,316 25	86,170 18	13,835 09	23,119 15	8,902 00		477,342 67
Totals		$2,637,392 69	$458,231 10	$108,491 17	$96,361 41	$62,879 37	$349 81	$3,363,705 55

TABLE No. 16.

Showing the various items composing the Expenditures of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885—California Companies.

NAME.	Location.	Fire Losses.	Marine Losses.	Dividends.	Commissions and Brokerage.	Office Salaries.	State and Local Taxes.	All other Expenditures.	Total Expenditures.
Anglo-Nevada	San Francisco				$119 56	$2,420 00		$2,841 37	$5,380 93
California	San Francisco	$237,066 12	$27,173 19	$54,000 00	51,846 20	30,154 68	$13,776 12	43,536 77	457,553 08
Commercial	San Francisco	195,747 23	17,388 43	24,000 00	67,760 00	26,829 50	6,543 25	23,485 71	361,754 12
Fireman's Fund	San Francisco	294,754 46	147,457 24	90,000 00	106,166 12	81,784 91	12,164 29	97,782 99	830,110 01
Home Mutual	San Francisco	289,951 44		36,000 00	135,305 30	37,047 50	6,781 48	60,358 07	565,443 79
Oakland Home	Oakland	87,928 37		12,294 50	24,816 51	28,635 50	4,631 64	21,927 47	180,233 99
Southern California	Los Angeles	9,469 94			13,539 54	9,263 64	222 69	6,966 53	39,462 34
State Investment	San Francisco	99,751 44		23,389 00	31,043 19	15,170 00	2,094 03	19,548 58	190,996 24
Sun	San Francisco	86,678 81	34,900 87	22,500 00	31,608 56	28,825 64	2,929 99	21,486 05	228,929 92
Union	San Francisco	159,986 87	68,901 90	59,628 00	84,358 44	41,598 83	12,235 91	34,734 71	461,444 66
Totals		$1,461,334 68	$295,821 63	$321,811 50	$546,563 42	$301,730 20	$61,379 40	$332,668 25	$3,321,309 08

TABLE No. 17.

Showing amount of Risks Written, Premiums Received, and Amount of Risks in force, on the thirty-first day of December, 1885, with Premiums thereon, of Fire and Marine Insurance Companies doing business in California—California Companies.

NAME.	Location.	RISKS WRITTEN DURING THE YEAR.				Total Premiums.
		Fire.	Premiums.	Marine.	Premiums.	
Anglo-Nevada	San Francisco	$1,206,693 00	$16,140 09	$628,480 00	$4,014 77	$20,254 86
California	San Francisco	32,865,082 00	444,993 53	6,854,253 00	114,854 98	559,848 51
Commercial	San Francisco	24,624,543 00	394,738 31	2,567,828 00	41,203 28	435,941 59
Fireman's Fund	San Francisco	62,339,413 00	878,018 47	16,033,133 00	328,314 15	1,206,332 62
Home Mutual	San Francisco	36,350,210 00	585,377 04			585,377 04
Oakland Home	Oakland	12,510,102 00	213,425 58			213,425 58
Southern California	Los Angeles	5,368,796 00	101,446 44			101,446 44
State Investment	San Francisco	9,666,679 00	156,430 56			156,430 56
Sun	San Francisco	15,027,653 00	217,476 00	2,254,842 00	70,587 04	288,063 04
Union	San Francisco	31,240,027 00	390,234 48	9,472,571 00	112,355 55	502,590 03
Totals		$231,199,198 00	$3,398,280 50	$37,811,087 00	$671,229 77	$4,069,710 27

NAME.	Location.	RISKS IN FORCE DECEMBER 31, 1885.				Total Premiums.
		Fire.	Premiums.	Marine.	Premiums.	
Anglo-Nevada	San Francisco	$1,139,243 00	$15,048 74	$204,235 00	$3,564 66	$18,613 40
California	San Francisco	27,600,242 00	389,108 37	895,637 00	54,424 30	443,532 67
Commercial	San Francisco	18,416,660 00	285,823 29	279,541 00	20,361 76	306,185 05
Fireman's Fund	San Francisco	59,322,233 00	804,201 34	1,859,154 00	109,602 94	913,804 28
Home Mutual	San Francisco	24,527,364 00	403,717 43			403,717 43
Oakland Home	Oakland	11,350,310 00	177,329 74			177,329 74
Southern California	Los Angeles	4,188,787 00	75,135 57			75,135 57
State Investment	San Francisco	9,853,134 00	160,267 50			160,267 50
Sun	San Francisco	11,221,828 00	165,010 90	611,797 00	41,828 46	206,839 36
Union	San Francisco	29,724,798 00	399,941 22	808,636 00	37,248 70	437,189 92
Totals		$197,244,599 00	$2,875,584 10	$4,659,000 00	$267,030 82	$3,142,614 92

TABLE NO. 18.

Summary of Assets, Liabilities, Income, Expenditures, etc., and amount of Surplus over Capital Stock, of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885—Companies of other States.

NAME.	Location.	Cash Capital paid up.	Assets.	Liabilities, Capital not included.	Income.
Ætna	Hartford	$1,000,000 00	$9,260,096 65	$2,057,776 24	$2,982,457 27
Agricultural	Watertown, New York	500,000 00	1,831,797 97	1,175,577 54	824,373 54
Allemannia	Pittsburgh	200,000 00	337,862 36	110,594 22	195,306 74
Amazon	Cincinnati	300,000 00	555,796 30	132,029 49	187,556 21
American	Newark	600,000 00	1,761,159 47	316,292 75	448,017 84
American Central	St. Louis	600,000 00	1,172,792 61	387,174 31	550,060 43
American Fire	Philadelphia	400,000 00	1,918,432 05	1,070,610 92	1,080,508 08
Boatman's Fire and Marine	Pittsburgh	250,000 00	432,139 10	148,261 89	217,559 78
Boylston Mutual	Boston	557,200 00	931,891 12	215,081 42	312,290 26
Citizens'	St. Louis	200,000 00	437,303 57	58,100 90	105,456 03
Citizens'	New York	300,000 00	1,084,164 91	477,225 46	675,107 18
Clinton Fire	New York	250,000 00	465,907 19	149,482 61	252,902 86
Concordia Fire	Milwaukee	200,000 00	481,182 36	197,789 57	251,891 66
Connecticut Fire	Hartford	1,000,000 00	1,974,749 75	671,065 97	1,013,599 50
Continental	New York	1,000,000 00	5,177,478 99	2,818,599 14	3,388,642 70
Eliot	Boston	200,000 00	405,689 03	110,766 00	170,617 07
Farragut Fire	New York	200,000 00	431,392 26	124,482 99	195,467 79
Fire Association of Philadelphia	Philadelphia	500,000 00	4,250,564 07	2,966,771 99	1,739,577 77
Firemen's	Baltimore	378,000 00	570,424 97	67,911 78	136,018 39
Firemen's	Newark	600,000 00	1,554,856 38	195,967 59	370,792 75
Franklin Fire	Philadelphia	400,000 00	3,130,255 97	1,817,865 47	621,627 75
German	Freeport, Illinois	200,000 00	1,813,498 08	1,408,817 33	1,210,082 89
German-American	New York	1,000,000 00	4,701,402 74	1,661,552 16	2,162,207 81
German Fire	Pittsburgh	200,000 00	449,814 14	185,714 15	270,064 31
Germania Fire	New York	1,000,000 00	2,442,805 22	964,918 11	1,269,895 35
Girard	Philadelphia	300,000 00	1,263,509 78	416,987 90	391,026 75
Glen's Falls	Glen's Falls, New York	200,000 00	1,490,652 41	549,077 32	624,172 40
Hanover Fire	New York	1,000,000 00	2,479,134 13	1,033,482 86	1,373,430 68
Hartford	Hartford	1,250,000 00	4,745,341 92	2,051,982 71	2,510,536 30
Home	New York	3,000,000 00	7,618,116 08	3,390,120 98	3,839,181 65
Howard	New York	400,000 00	701,264 45	235,255 09	328,721 10
Insurance Company of North America	Philadelphia	3,000,000 00	8,977,590 95	3,022,265 91	3,977,215 70
Insurance Company of the State of Pennsylvania	Philadelphia	200,000 00	626,863 35	226,528 77	215,341 43
Merchants'	Newark	400,000 00	1,225,985 22	468,284 90	633,321 72
Merchants'	New York	200,000 00	449,791 49	142,118 45	212,963 37

National Fire	New York	200,000 00	393,163 25	129,963 25	212,335 85
National Fire	Hartford	1,000,000 00	1,853,727 97	380,104 12	585,114 14
New Hampshire Fire	Manchester, New Hampshire	500,000 00	1,101,451 03	381,467 69	599,711 08
Niagara	New York	500,000 00	2,080,950 14	1,183,236 88	1,531,165 24
North American	Boston	200,000 00	340,299 89	79,173 91	103,613 20
Northwestern National	Milwaukee	600,000 00	1,263,753 02	421,529 68	537,151 80
Oregon Fire and Marine	Portland	220,100 00	311,573 43	33,580 63	78,302 86
Orient	Hartford	1,000,000 00	1,551,953 68	421,059 05	639,609 35
Pacific Fire	New York	200,000 00	758,127 20	218,264 87	337,127 92
Pennsylvania	Pittsburgh	200,000 00	284,814 53	79,908 70	138,358 21
Pennsylvania Fire	Philadelphia	400,000 00	2,552,616 81	1,095,418 04	1,005,868 95
People's	Pittsburgh	200,000 00	323,997 80	96,313 37	170,539 88
Phenix	New York	1,000,000 00	4,923,886 73	3,209,719 31	5,073,318 78
Phœnix	Hartford	2,000,000 00	4,488,220 70	1,566,406 08	2,232,071 27
Prescott	Boston	200,000 00	383,962 35	142,835 11	212,284 98
Providence-Washington	Providence, Rhode Island	400,000 00	960,429 23	450,154 09	811,160 66
St. Paul	St. Paul, Minnesota	500,000 00	1,261,829 33	469,917 47	755,663 97
Security	New Haven	200,000 00	451,273 01	182,407 13	323,591 69
Springfield Fire and Marine	Springfield, Massachusetts	1,000,000 00	2,803,436 80	1,392,894 45	1,706,574 81
Sun Mutual	New Orleans	498,971 61	979,409 98	208,413 57	298,065 26
Teutonia	New Orleans	250,000 00	415,972 83	75,972 83	160,654 24
Traders'	Chicago	500,000 00	1,228,345 42	368,442 64	528,134 44
Union	Philadelphia	375,000 00	784,056 85	399,754 48	434,813 97
United States Fire	New York	250,000 00	561,378 02	83,969 02	161,918 20
Washington Fire and Marine	Boston	1,000,000 00	1,810,273 16	641,730 14	1,015,543 29
Westchester Fire	New York	300,000 00	1,142,568 51	616,363 84	783,344 77
Williamsburg City Fire	Brooklyn	250,000 00	1,218,808 36	465,450 80	662,679 71
Totals		$38,929,271 61	$113,411,987 07	$45,821,016 11	$55,837,011 58

TABLE No. 18—Continued.

NAME.	Location.	Expenditures.	Losses Incurred during the Year.	Net Surplus.
Ætna	Hartford	$2,884,191 70	$1,401,479 41	$3,202,320 41
Agricultural	Watertown, New York	816,863 94	429,826 93	156,220 43
Allemannia	Pittsburgh	194,833 16	108,152 15	27,268 14
Amazon	Cincinnati	182,560 64	93,338 04	123,766 81
American	Newark	428,266 35	187,160 13	844,866 72
American Central	St. Louis	504,919 50	285,151 90	185,618 27
American Fire	Philadelphia	954,960 54	571,785 30	447,821 13
Boatman's Fire and Marine	Pittsburgh	183,503 74	125,091 18	33,877 21
Boyleston Mutual	Boston	298,113 26	175,310 48	159,609 70
Citizens'	St. Louis	90,699 35	47,112 00	179,202 67
Citizens'	New York	704,772 43	385,664 29	306,939 45
Clinton Fire	New York	252,363 68	124,462 04	66,424 58
Concordia Fire	Milwaukee	216,460 76	128,448 51	83,392 79
Connecticut Fire	Hartford	948,587 74	527,395 90	303,683 78
Continental	New York	3,360,593 23	2,020,963 24	1,358,879 85
Eliot	Boston	134,956 01	64,030 81	94,923 03
Farragut Fire	New York	157,258 80	69,987 08	106,909 27
Fire Association of Philadelphia	Philadelphia	1,679,967 87	966,900 19	783,792 08
Firemen's	Baltimore	119,030 88	61,722 49	124,483 19
Firemen's	Newark	293,011 28	128,659 41	758,888 79
Franklin Fire	Philadelphia	538,742 69	217,925 03	912,390 50
German	Freeport, Illinois	1,038,859 90	544,757 63	234,680 75
German-American	New York	1,852,912 04	1,175,903 16	2,039,850 58
German Fire	Pittsburgh	269,400 17	160,174 76	64,099 99
Germania Fire	New York	1,507,695 38	874,716 98	477,887 11
Girard	Philadelphia	350,809 16	135,854 04	546,521 88
Glen's Falls	Glen's Falls, New York	526,406 11	287,166 71	741,575 09
Hanover Fire	New York	1,480,530 05	751,963 05	445,651 27
Hartford	Hartford	2,310,936 49	1,346,923 69	1,443,359 21
Home	New York	3,746,526 40	2,014,534 67	1,227,995 10
Howard	New York	304,389 07	159,302 34	66,009 36
Insurance Company of North America	Philadelphia	4,203,596 57	2,628,000 00	2,955,325 01
Insurance Company of the State of Pennsylvania	Philadelphia	220,674 26	125,747 53	200,334 58
Merchants'	Newark	632,107 17	384,015 30	357,700 32
Merchants'	New York	165,409 82	72,459 41	107,673 04
National Fire	New York	201,891 16	112,067 35	63,200 00
National Fire	Hartford	527,054 55	281,581 07	473,623 85
New Hampshire Fire	Manchester, New Hampshire	533,016 81	293,144 87	219,983 34
Niagara	New York	1,367,038 48	790,014 18	397,713 26

North American	Boston	103,805 14	56,054 15	61,125 98
Northwestern National	Milwaukee	499,541 81	241,822 50	242,223 34
Oregon Fire and Marine	Portland	38,926 56	17,311 92	57,892 80
Orient	Hartford	559,697 26	338,153 30	130,894 62
Pacific Fire	New York	330,100 85	182,109 38	339,862 33
Pennsylvania	Pittsburgh	160,524 05	100,625 46	4,905 83
Pennsylvania Fire	Philadelphia	889,541 48	524,741 55	1,057,198 77
People's	Pittsburgh	180,813 68	110,597 14	27,684 43
Phenix	New York	4,578,714 81	2,920,496 24	714,167 42
Phœnix	Hartford	2,190,642 11	1,205,624 20	921,814 62
Prescott	Boston	193,667 94	104,244 40	41,127 24
Providence-Washington	Providence, Rhode Island	745,368 04	463,742 78	110,275 14
St. Paul	St. Paul, Minnesota	670,535 74	415,547 35	291,911 86
Security	New Haven	283,021 88	193,229 04	68,865 88
Springfield Fire and Marine	Springfield, Massachusetts	1,542,107 44	851,473 96	410,542 35
Sun Mutual	New Orleans	338,165 76	220,740 02	272,024 80
Teutonia	New Orleans	141,789 88	96,814 00	90,000 00
Traders'	Chicago	525,579 05	336,526 06	359,902 78
Union	Philadelphia	562,696 66	379,741 39	9,302 37
United States Fire	New York	139,190 82	60,966 90	227,409 00
Washington Fire and Marine	Boston	925,291 71	549,493 92	168,543 02
Westchester Fire	New York	669,655 56	355,070 49	226,204 67
Williamsburg City Fire	Brooklyn	622,897 84	314,117 21	503,357 56
Totals		$53,076,187 21	$30,298,136 61	$28,661,699 35

TABLE No. 19.

Showing the various items composing the Assets of Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885—Companies of other States.

NAME.	Location.	Real Estate.	Loans on Bonds and Mortgages.	Stock and Bonds Owned by the Company.	Loans on Stocks and other collateral securities.	Cash in Office and in Banks.
Ætna	Hartford	$345,000 00	$43,800 00	$7,563,862 50	$15,170 00	$941,086 65
Agricultural	Watertown, New York	147,812 48	930,929 77	423,001 50	24,424 16	192,777 82
Allemannia	Pittsburgh	85,300 00	73,570 00	58,077 00	37,500 00	44,643 92
Amazon	Cincinnati	244,200 00	27,914 40	136,917 50	88,641 55	32,511 27
American	Newark	385,305 68	683,021 75	615,625 00		36,145 87
American Central	St. Louis			915,845 00	99,000 00	71,223 11
American Fire	Philadelphia	137,100 00	364,089 50	1,203,781 48	54,800 00	113,856 57
Boatman's Fire and Marine	Pittsburgh	66,404 66	69,053 34	226,296 13	13,000 00	31,593 68
Boylston Mutual	Boston	14,000 00	163,000 00	573,159 00	75,400 00	63,542 35
Citizens'	St. Louis	11,600 00	56,560 00	258,125 00	75,000 00	21,121 32
Citizens'	New York	107,000 00	56,900 00	613,400 00	143,400 00	85,357 59
Clinton Fire	New York	26,400 00		392,846 00		11,370 88
Concordia Fire	Milwaukee		261,145 00	148,125 00		38,918 96
Connecticut Fire	Hartford	66,000 00	512,550 00	1,195,964 00	9,250 00	119,279 17
Continental	New York	674,500 00	348,610 00	3,230,435 00	4,700 00	229,432 31
Eliot	Boston		58,200 00	267,702 00		55,690 77
Farragut Fire	New York	6,000 00	9,900 00	343,720 00	6,200 00	42,961 21
Fire Association of Philadelphia	Philadelphia	70,800 00	1,007,560 91	2,805,246 00	5,450 00	197,532 04
Firemen's	Baltimore	146,875 00		382,312 69		29,272 52
Firemen's	Newark	133,265 06	690,734 00	614,247 45	52,190 00	43,767 70
Franklin Fire	Philadelphia	437,950 00	901,013 67	1,166,395 00	199,200 00	355,468 86
German	Freeport, Illinois	21,460 97	791,100 64	140,841 00	52,105 00	163,903 91
German-American	New York			4,390,385 00		145,940 07
German Fire	Pittsburgh	18,074 90	203,644 39	157,853 39	900 00	34,707 91
Germania Fire	New York	538,454 08	91,500 00	1,620,741 25		77,035 25
Girard	Philadelphia	328,800 00	521,599 99	254,182 50	6,400 00	94,945 59
Glen's Falls	Glen's Falls, New York	12,575 00	530,345 75	754,325 00		134,080 90
Hanover Fire	New York		109,250 00	2,135,117 75		100,392 80
Hartford	Hartford	639,675 60	1,040,400 00	2,163,769 75	135,000 00	384,547 17
Home	New York	1,272,633 77	897,550 00	4,623,940 00	122,850 00	215,795 99
Howard	New York	150,000 00	5,900 00	494,332 00		8,565 59
Insurance Company of North America	Philadelphia	312,861 55	1,983,346 48	5,121,918 00	47,650 00	832,565 58
Insurance Company of the State of Pennsylvania	Philadelphia	68,800 00	111,050 00	288,513 70	100,000 00	17,904 61

Merchants'	Newark	134,804 16	414,887 00	514,103 00	15,700 00	62,899 78
Merchants'	New York	15,500 00	80,100 00	263,325 00	3,549 16	65,766 39
National Fire	New York		48,438 98	293,740 00		28,280 10
National Fire	Hartford	24,478 40	482,250 00	1,049,828 00	12,650 00	266,712 41
New Hampshire Fire	Manchester, N. H.		130,296 86	789,140 00	61,862 50	65,142 39
Niagara	New York	107,000 00	38,800 00	1,531,220 00	30,000 00	124,824 39
North America	Boston	12,182 23	41,922 48	245,935 37	15,925 00	11,663 47
Northwestern National	Milwaukee		217,500 00	826,636 00		179,751 49
Oregon Fire and Marine	Portland		194,700 00	91,471 56	1,000 00	11,714 43
Orient	Hartford	37,115 27	243,026 67	1,003,428 66	81,060 00	92,220 46
Pacific Fire	New York	70,000 00	86,400 00	546,616 25	1,050 00	19,072 95
Pennsylvania	Pittsburgh	49,200 00	133,817 16	67,487 33		17,833 16
Pennsylvania Fire	Philadelphia	115,000 00	147,370 00	1,787,981 25	192,200 00	220,395 09
People's	Pittsburgh	57,000 00	153,881 35	68,865 50	11,200 00	17,131 97
Phenix	New York	738,512 58	342,750 00	2,593,106 10	50,450 00	458,816 05
Phœnix	Hartford	168,255 31	407,880 00	3,285,075 81	99,410 00	308,018 28
Prescott	Boston			344,215 00		15,315 85
Providence-Washington	Providence, R. I.			714,191 00		54,689 02
Saint Paul	St. Paul, Minnesota	101,264 56	207,866 72	512,615 96	250,758 91	80,555 42
Security	New Haven		85,450 00	271,405 50	17,900 00	45,675 67
Springfield Fire and Marine	Springfield, Mass.	96,528 00	303,366 67	1,884,064 00	15,400 00	107,466 36
Sun Mutual	New Orleans	91,000 00	23,918 32	514,803 70	82,761 56	145,890 36
Teutonia	New Orleans	32,750 00	54,091 66	128,650 75	108,680 50	47,376 19
Traders'	Chicago	12,195 98	90,000 00	1,011,792 50		53,626 88
Union	Philadelphia	187,000 00	9,500 00	398,922 75	13,873 63	35,642 78
United States Fire	New York		254,950 00	283,475 00	4,500 00	1,082 44
Washington Fire and Marine	Boston		41,500 00	1,423,015 00	53,000 00	118,333 90
Westchester Fire	New York	2,000 00	153,100 00	841,700 00	1,825 00	73,923 62
Williamsburg City Fire	Brooklyn	551,673 95	272,900 00	275,597 00	9,550 00	35,726 32
Totals		$9,072,309 19	$17,213,843 49	$68,873,441 58	$2,502,536 97	$7,763,487 60

TABLE No. 19—Continued.

NAME.	Location.	Interest Due and Accrued.	Premiums in course of Collection.	Bills Receivable, not matured, taken for Marine and Inland Risks.	All other Assets.	Total Assets.
Ætna	Hartford	$1,355 25	$349,822 25			$9,260,096 65
Agricultural	Watertown, New York	28,729 29	61,075 25	$22,022 70	$1,025 00	1,831,797 97
Allemannia	Pittsburgh	2,421 86	29,522 29	5,027 29	1,800 00	337,862 36
Amazon	Cincinnati	1,401 77	22,343 05	748 03	1,118 73	555,796 30
American	Newark	18,170 12	18,359 81		4,531 24	1,761,159 47
American Central	St. Louis	2,500 00	54,224 50			1,172,792 61
American Fire	Philadelphia	8,728 88	27,478 35		7,597 27	1,918,432 05
Boatman's Fire and Marine	Pittsburgh	668 81	23,353 27	250 00	1,519 21	432,139 10
Boyleston Mutual	Boston	4,393 40	22,728 54	15,667 83		931,891 12
Citizens'	St. Louis	1,220 00	13,737 25			437,303 57
Citizens'	New York	5,035 11	72,179 70		892 51	1,084,164 91
Clinton Fire	New York	1,576 66	33,713 65			465,907 19
Concordia Fire	Milwaukee	5,494 66	27,498 74			481,182 36
Connecticut Fire	Hartford		71,706 58			1,974,749 75
Continental	New York	59,877 44	288,803 07	335,121 14	6,000 00	5,177,478 99
Eliot	Boston	3,883 59	20,101 95	110 72		405,689 03
Farragut Fire	New York	229 25	22,193 12		188 68	431,392 26
Fire Association of Philadelphia	Philadelphia	40,638 23	122,392 36		944 50	4,250,564 07
Firemen's	Baltimore	6,032 83	4,179 77		1,752 16	570,424 97
Firemen's	Newark	12,685 28	7,483 22		483 67	1,554,856 38
Franklin Fire	Philadelphia	15,254 10	51,973 34			3,130,255 97
German	Freeport, Illinois	40,193 96	105,652 01		525,240 59	1,843,498 08
German-American	New York	875 00	164,202 67			4,701,402 74
German Fire	Pittsburgh	4,279 02	29,991 20		363 33	449,814 14
Germania Fire	New York	2,775 00	11,697 29		97,602 35	2,442,805 22
Girard	Philadelphia	11,480 57	37,710 63		8,390 50	1,263,509 78
Glen's Falls	Glen's Falls, New York	6,337 66	52,988 10			1,490,652 41
Hanover Fire	New York	9,059 39	125,314 19			2,479,134 13
Hartford	Hartford	22,173 48	344,651 48		15,124 44	4,745,341 92
Home	New York	97,056 02	190,806 94	167,483 36		7,618,116 08
Howard	New York	639 50	41,294 03		533 33	701,264 45
Insurance Company of North America	Philadelphia	26,589 55	440,886 22	145,804 63	65,968 94	8,977,590 95
Insurance Company of the State of Pennsylvania	Philadelphia	7,560 30	22,916 29	7,898 23	2,190 22	626,863 35
Merchants'	Newark	14,631 90	67,665 73		1,293 65	1,225,985 22
Merchants'	New York	2,602 08	18,948 86			449,791 49
National Fire	New York	1,116 05	21,588 12			393,163 25
National Fire	Hartford	17,809 15				1,853,727 97

New Hampshire Fire	Manchester, N. H.	6,869 84	48,139 44			1,101,451 03
Niagara	New York	16,964 00	229,450 37		2,691 38	2,080,950 14
North American	Boston	1 518 40	9,656 07		1,496 87	340,299 89
Northwestern National	Milwaukee	3,145 00	33,020 53		3,700 00	1,263,753 02
Oregon Fire and Marine	Portland	4,039 30	8,618 14			311,573 43
Orient	Hartford	19,392 86	75,359 76		350 00	1,551,953 68
Pacific Fire	New York	6,332 37	28,530 63		125 00	758,127 20
Pennsylvania	Pittsburgh	4,041 97	10,639 91		1,795 00	284,814 53
Pennsylvania Fire	Philadelphia	3,761 34	85,172 29		736 84	2,552,616 81
People's	Pittsburgh	3,078 86	11,765 87		1,074 25	323,997 80
Phenix	New York	13,326 71	661,535 85	62,230 87	3,158 57	4,923,886 73
Phœnix	Hartford	13,209 05	205,459 75		912 50	4,488,220 70
Prescott	Boston	2,833 32	21,598 18			383,962 35
Providence-Washington	Providence, R. I.		71,264 63	120,284 58		960,429 23
St. Paul	St. Paul, Minnesota	22,275 99	68,795 56	16,833 21	863 00	1,261,829 33
Security	New Haven	1,413 06	23,591 53	5,837 25		451,273 01
Springfield Fire and Marine	Springfield, Mass.	32,378 09	169,090 00	194,302 73	840 95	2,803,436 80
Sun Mutual	New Orleans		115,000 00	6,036 04		979,409 98
Teutonia	New Orleans		28,218 81	6,338 34	9,866 58	415,972 83
Traders'	Chicago	1,625 00	29,762 19		29,342 87	1,228,345 42
Union	Philadelphia	2,190 28	119,052 99	14,524 56	3,349 86	784,056 85
United States Fire	New York	3,820 52	13,550 06			561,378 02
Washington Fire and Marine	Boston	5,245 00	96,232 64	72,946 62		1,810,273 16
Westchester Fire	New York	1,675 62	68,344 27			1,142,568 51
Williamsburg City Fire	Brooklyn	6,904 14	56,529 24		9,927 71	1,218,808 36
Totals		$661,545 88	$5,310,562 53	$1,199,468 13	$814,791 70	$113,411,987 07

Table No. 20.

Showing the various items composing the Liabilities, except Capital Stock, of Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885—Companies of other States.

Name.	Location.	Losses Adjusted.	Losses Unadjusted.	Losses Resisted.	Cash Dividends.
Ætna	Hartford	$89,648 62	$133,216 23	$35,912 78	
Agricultural	Watertown, New York	12,475 86	26,778 00	20,302 00	$25 00
Allemannia	Pittsburgh	11,424 95	7,950 00	1,112 37	
Amazon	Cincinnati	10,397 61	10,625 00	2,500 00	115 20
American	Newark	5,934 81	10,203 57	5,906 76	12,743 90
American Central	St. Louis	22,890 28	15,205 40	14,410 21	
American Fire	Philadelphia	39,544 90	34,096 34	29,699 30	732 00
Boatman's Fire and Marine	Pittsburgh	8,957 74	13,510 37	10,143 28	
Boyleston Mutual	Boston		23,783 00	26,402 00	
Citizens'	St. Louis	3,626 00	4,531 00	1,500 00	
Citizens'	New York	21,613 78	32,312 08	10,251 82	153 10
Clinton Fire	New York	2,543 77	4,362 75	3,200 00	
Concordia Fire	Milwaukee	3,517 82	11,803 32	1,200 00	56 00
Connecticut Fire	Hartford		69,329 20	21,067 37	
Continental	New York		424,865 82	45,540 00	477 40
Eliot	Boston	3,664 00	10,494 00		210 00
Farragut Fire	New York	108 43	6,175 65	6,786 53	
Fire Association of Philadelphia	Philadelphia	62,150 81	57,193 92	42,144 28	
Firemen's	Baltimore	682 94	7,005 71		477 90
Firemen's	Newark	1,840 50	10,673 91		
Franklin Fire	Philadelphia	7,817 18	20,110 91	9,846 13	360 00
German	Freeport, Illinois		71,867 00	4,000 00	
German-American	New York	53,183 95	98,102 01	15,680 29	
German Fire	Pittsburgh	12,680 15			
Germania Fire	New York	60,597 42	38,544 80	42,871 05	
Girard	Philadelphia		27,508 57	3,068 92	
Glen's Falls	Glen's Falls, New York	7,716 30	14,651 00	4,250 00	
Hanover Fire	New York	54,614 56	49,905 25	36,830 22	
Hartford	Hartford	77,178 09	138,693 55	69,997 19	
Home	New York	85,860 37	215,857 65	71,765 96	
Howard	New York	17,642 60	14,104 13	2,611 50	40 50
Insurance Company of North America	Philadelphia	49,744 94	263,908 46	57,407 21	
Insurance Company of the State of Pennsylvania	Philadelphia	37,970 00			230 00
Merchants'	Newark	35,677 20	16,490 00	21,780 45	1,224 83
Merchants'	New York		18,138 00	3,200 00	

National Fire	New York	15,062 44	5,550 00	4,870 65	
National Fire	Hartford	26,588 49	26,752 56	7,385 80	
New Hampshire Fire	Manchester, New Hampshire	25,166 66	21,240 00		
Niagara	New York	156,723 57		13,446 18	695 50
North American	Boston	3,921 41	3,502 50		
Northwestern National	Milwaukee	10,912 12	19,225 50	3,000 00	
Oregon Fire and Marine	Portland		1,579 33		
Orient	Hartford	60,075 54		3,587 50	
Pacific Fire	New York	3,190 00	16,110 00	6,000 00	
Pennsylvania	Pittsburgh	7,866 98	2,655 00	955 88	394 00
Pennsylvania Fire	Philadelphia	79,884 89			
People's	Pittsburgh	7,972 77	3,491 25	2,870 23	
Phenix	New York		316,255 63	28,218 00	
Phœnix	Hartford	192,590 83		38,882 89	
Prescott	Boston	9,113 37	1,925 00		
Providence-Washington	Providence, Rhode Island	2,162 19	59,855 94	5,450 00	
St. Paul	St. Paul, Minnesota	9,174 10	26,825 08	7,924 42	
Security	New Haven	3,850 67	15,080 32	3,529 37	
Springfield Fire and Marine	Springfield, Massachusetts	63,809 84	42,731 06	36,407 31	
Sun Mutual	New Orleans	48,788 00			15,752 50
Teutonia	New Orleans	6,452 00			844 40
Traders'	Chicago	13,380 51	45,948 11	13,310 18	
Union	Philadelphia	15,243 76	26,260 29	19,336 66	2,343 66
United States Fire	New York	2,062 31	4,125 00		96 25
Washington Fire and Marine	Boston		107,060 00		
Westchester Fire	New York	13,655 14	22,551 00	4,000 00	
Williamsburg City Fire	Brooklyn	7,810 25	22,361 87	7,650 00	200 00
Totals		$1,587,163 42	$2,693,082 04	$828,212 69	$37,172 14

TABLE No. 20—Continued.

NAME.	Location.	Fire Reinsurance.	Marine Reinsurance.	All other Claims.	Total Liabilities, Capital not included.	Net Surplus.
Ætna	Hartford	$1,719,351 31	$6,117 99	$73,529 31	$2,057,776 24	$3,202,320 41
Agricultural	Watertown, New York	1,107,663 34		8,333 34	1,175,577 54	156,220 43
Allemannia	Pittsburgh	88,906 90		1,200 00	110,594 22	27,268 14
Amazon	Cincinnati	105,378 24		3,013 44	132,029 49	123,766 81
American	Newark	270,612 67		10,891 04	316,292 75	844,866 72
American Central	St. Louis	326,534 77		8,133 68	387,174 34	185,618 27
American Fire	Philadelphia	965,306 23		1,232 15	1,070,610 92	447,821 13
Boatman's Fire and Marine	Pittsburgh	102,934 57	1,308 00	11,407 93	148,261 89	33,877 21
Boyleston Mutual	Boston	144,504 05	17,798 17	2,594 20	215,081 42	159,609 70
Citizens'	St. Louis	45,929 90		2,514 00	58,100 90	179,202 67
Citizens'	New York	406,052 04		6,842 64	477,225 46	306,939 45
Clinton Fire	New York	103,478 68		35,897 41	149,482 61	66,424 58
Concordia Fire	Milwaukee	175,687 88		5,524 55	197,789 57	83,392 79
Connecticut Fire	Hartford	580,669 40			671,065 97	303,683 78
Continental	New York	2,209,458 36	55,969 52	82,288 04	2,818,599 14	1,358,879 85
Eliot	Boston	92,273 00		4,125 00	110,766 00	94,923 03
Farragut Fire	New York	106,253 28		5,159 10	124,482 99	106,909 27
Fire Association of Philadelphia	Philadelphia	2,805,282 98			2,966,771 99	783,792 08
Firemen's	Baltimore	59,232 27		542 96	67,941 78	124,483 19
Firemen's	Newark	180,757 86		2,695 32	195,967 59	758,888 79
Franklin Fire	Philadelphia	1,779,731 25			1,817,865 47	912,390 50
German	Freeport, Illinois	1,304,298 80		28,651 53	1,408,817 33	234,680 75
German-American	New York	1,465,650 20		28,935 71	1,661,552 16	2,039,850 58
German Fire	Pittsburgh	171,584 00		1,450 00	185,714 15	64,099 99
Germania Fire	New York	822,904 84			964,918 11	477,887 11
Girard	Philadelphia	374,484 06		11,926 35	416,987 90	546,521 88
Glen's Falls	Glen's Falls, New York	514,267 12		8,192 90	549,077 32	741,575 09
Hanover Fire	New York	890,312 28		1,820 55	1,033,482 86	445,651 27
Hartford	Hartford	1,733,863 88		32,250 00	2,051,982 71	1,443,359 21
Home	New York	3,011,637 00		5,000 00	3,390,120 98	1,227,995 10
Howard	New York	184,902 88		15,953 48	235,255 09	66,009 36
Insurance Company of North America	Philadelphia	2,381,309 63	238,729 24	31,166 46	3,022,265 94	2,955,325 01
Insurance Co. of the State of Pennsylvania	Philadelphia	164,586 83	20,835 95	2,905 99	226,528 77	200,334 58
Merchants'	Newark	369,844 96		23,267 46	468,284 90	357,700 32
Merchants'	New York	119,017 35		1,763 10	142,118 45	107,673 04
National Fire	New York	102,459 78		2,020 38	129,963 25	63,200 00
National Fire	Hartford	319,377 27			380,104 12	473,623 85
New Hampshire Fire	Manchester, New Hampshire	325,433 15		9,627 88	381,467 69	219,983 34

Niagara	New York	1,007,371 63		5,000 00	1,183,236 88	397,713 26
North American	Boston	68,329 05		3,420 95	79,173 91	61,125 98
Northwestern National	Milwaukee	383,813 28	250 00	4,328 78	421,529 68	242,223 34
Oregon Fire and Marine	Portland	30,930 50		1,070 80	33,580 63	57,892 80
Orient	Hartford	357,396 02			421,059 06	130,894 62
Pacific Fire	New York	185,758 88		7,205 99	218,264 87	339,862 33
Pennsylvania	Pittsburgh	67,733 80		303 04	79,908 70	4,905 83
Pennsylvania Fire	Philadelphia	1,015,533 15			1,095,418 04	1,057,198 77
People's	Pittsburgh	81,571 58		407 54	96,313 37	27,684 43
Phenix	New York	2,702,601 21	142,447 63	20,196 84	3,209,719 31	714,167 42
Phœnix	Hartford	1,334,932 36			1,566,406 08	921,814 62
Prescott	Boston	127,840 44		3,956 30	142,835 11	41,127 24
Providence-Washington	Providence, Rhode Island	314,779 64	67,906 32		450,154 09	110,275 14
St. Paul	St. Paul, Minnesota	415,672 10	10,321 77		469,917 47	291,911 86
Security	New Haven	133,409 28	22,360 37	4,177 12	182,407 13	68,865 88
Springfield Fire and Marine	Springfield, Massachusetts	1,224,582 74		25,363 50	1,392,894 45	410,542 35
Sun Mutual	New Orleans	*139,476 00		4,397 07	208,413 57	272,024 80
Teutonia	New Orleans	*68,676 43			75,972 83	90,000 00
Traders'	Chicago	264,516 52		31,287 32	368,442 64	359,902 78
Union	Philadelphia	202,210 64	26,147 87	108,211 60	399,754 48	9,302 37
United States Fire	New York	70,725 34	4,401 87	2,558 25	83,969 02	227,409 00
Washington Fire and Marine	Boston	476,306 06	57,429 98	934 10	641,730 14	168,543 02
Westchester Fire	New York	567,010 40		9,147 30	616,363 84	226,204 67
Williamsburg City Fire	Brooklyn	407,140 70		20,287 98	465,450 80	503,357 56
Totals		$39,280,250 76	$672,024 68	$723,110 38	$45,821,016 11	$28,661,699 35

* Includes Marine reinsurance.

TABLE No. 21.

Showing the various items composing the Income of the Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885—Companies of other States.

NAME.	Location.	Fire Premiums.	Marine Premiums.	Interest on Bonds and Mortgages.
Ætna	Hartford	$2,420,355 00	$133,911 77	$2,548 23
Agricultural	Watertown, New York	737,823 44		57,321 23
Allemannia	Pittsburgh	178,580 20		4,772 28
Amazon	Cincinnati	165,704 73		3,023 74
American	Newark	369,282 60		39,364 57
American Central	St. Louis	486,284 09		
American Fire	Philadelphia	1,008,816 56		18,750 23
Boatman's Fire and Marine	Pittsburgh	189,167 39	6,572 17	3,599 35
Boylston Mutual	Boston	179,628 48	90,956 77	8,929 25
Citizens'	St. Louis	82,370 25	3,709 48	3,954 00
Citizens'	New York	630,417 42		3,978 67
Clinton Fire	New York	236,224 69		1,340 00
Concordia Fire	Milwaukee	227,302 48		16,244 56
Connecticut Fire	Hartford	919,433 81		31,038 15
Continental	New York	2,561,673 36	597,963 00	18,231 41
Eliot	Boston	154,503 18		2,099 75
Farragut	New York	179,348 83		545 19
Fire Association of Philadelphia	Philadelphia	1,534,995 61		52,201 30
Firemen's	Baltimore	113,014 38		
Firemen's	Newark	281,983 76		46,467 21
Franklin Fire	Philadelphia	488,454 75		67,885 04
German	Freeport, Illinois	1,126,149 42		
German-American	New York	1,992,664 46		
German Fire	Pittsburgh	250,829 14		11,731 00
Germania Fire	New York	1,177,440 96		8,557 49
Girard	Philadelphia	330,124 18		29,003 91
Glen's Falls	Glen's Falls, New York	564,333 19		29,297 43
Hanover Fire	New York	1,273,884 80		7,944 91
Hartford	Hartford	2,308,667 86		61,653 98
Home	New York	3,574,417 29		61,290 57
Howard	New York	301,488 30		449 00
Insurance Company of North America	Philadelphia	2,157,498 42	1,387,559 45	109,696 65
Insurance Company of the State of Pennsylvania	Philadelphia	134,085 77	53,053 05	4,812 50
Merchants'	Newark	577,036 51		26,086 99
Merchants'	New York	198,385 00		4,945 71

National Fire	New York	198,804 70		3,178 65
National Fire	Hartford	490,453 20		34,421 79
New Hampshire Fire	Manchester, New Hampshire	551,153 76		
Niagara	New York	1,464,103 79		5,937 00
North American	Boston	89,509 18		2,625 46
Northwestern National	Milwaukee	475,532 38	10,220 62	13,718 94
Oregon Fire and Marine	Portland	57,720 65		
Orient	Hartford	571,119 82		13,810 61
Pacific Fire	New York	309,642 22		4,443 61
Pennsylvania	Pittsburgh	122,898 16		8,774 88
Pennsylvania Fire	Philadelphia	897,663 56		8,406 33
People's	Pittsburgh	151,083 39		10,058 57
Phenix	New York	3,763,653 32	1,120,309 59	18,402 27
Phœnix	Hartford	2,042,832 74		7,187 14
Prescott	Boston	196,569 56		
Providence-Washington	Providence, Rhode Island	472,733 57	305,878 11	
St. Paul	St. Paul, Minnesota	606,442 06	69,823 58	13,038 46
Security	New Haven	256,671 81	48,859 08	3,449 68
Springfield Fire and Marine	Springfield, Massachusetts	1,593,456 08		15,758 64
Sun Mutual	New Orleans	*255,113 03		
Teutonia	New Orleans	110,071 23	28,669 98	
Traders'	Chicago	477,690 99	4,167 51	2,250 00
Union	Philadelphia	239,127 27	162,436 30	2,074 92
United States Fire	New York	127,014 10	10,232 42	15,606 51
Washington Fire and Marine	Boston	742,876 72	205,241 46	2,131 67
Westchester Fire	New York	746,903 41		8,400 65
Williamsburg City Fire	Brooklyn	622,294 44		14,479 85
Totals		$46,745,535 45	$4,239,564 34	$945,919 93

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* Includes Marine premiums.

TABLE No. 21—Continued.

NAME.	Location.	Interest and Dividends from other sources.	Rents.	Received from all other sources.	Total Income.
Ætna	Hartford	$417,156 16	$8,486 11		$2,982,457 27
Agricultural	Watertown, New York	23,299 97	5,928 90		824,373 54
Allemannia	Pittsburgh	6,897 75	5,056 51		195,306 74
Amazon	Cincinnati	12,562 58	6,265 16		187,556 21
American	Newark	30,250 00	9,120 67		448,017 84
American Central	St. Louis	63,776 34			550,060 43
American Fire	Philadelphia	48,773 31		$4,167 98	1,080,508 08
Boatman's Fire and Marine	Pittsburgh	12,682 10	3,596 20	1,942 57	217,559 78
Boylston Mutual	Boston	32,769 36		6 40	312,290 26
Citizens'	St. Louis	15,422 30			105,456 03
Citizens'	New York	28,571 53	5,038 01	7,101 55	675,107 18
Clinton Fire	New York	15,338 17			252,902 86
Concordia Fire	Milwaukee	8,344 62			251,891 66
Connecticut Fire	Hartford	63,127 54			1,013,599 50
Continental	New York	170,251 34	40,523 59		3,388,642 70
Eliot	Boston	13,027 66		986 48	170,617 07
Farragut	New York	15,018 77	525 00		195,467 79
Fire Association of Philadelphia	Philadelphia	143,305 57	5,102 29	3,973 00	1,739,577 77
Firemen's	Baltimore	16,455 86	6,518 15		136,018 39
Firemen's	Newark	33,464 52	8,836 14	41 12	370,792 75
Franklin Fire	Philadelphia	42,399 78	20,289 36	2,598 82	621,627 75
German	Freeport, Illinois	79,417 12		4,516 35	1,210,082 89
German-American	New York	169,543 35			2,162,207 81
German Fire	Pittsburgh	7,044 50	459 67		270,064 31
Germania Fire	New York	83,896 90			1,269,895 35
Girard	Philadelphia	16,407 59	15,491 07		391,026 75
Glen's Falls	Glen's Falls, New York	30,616 78	225 00		624,472 40
Hanover Fire	New York	91,600 97			1,373,430 68
Hartford	Hartford	117,598 56	22,615 90		2,510,536 30
Home	New York	203,473 79			3,839,181 65
Howard	New York	23,141 30	3,025 00	617 50	328,721 10
Insurance Company of North America	Philadelphia	274,332 49		48,128 69	3,977,215 70
Insurance Company of the State of Pennsylvania	Philadelphia	18,772 75	4,395 79	221 57	215,341 43
Merchants'	Newark	25,888 30	4,309 92		633,321 72
Merchants'	New York	8,357 21	1,275 45		212,963 37
National Fire	New York	10,352 50			212,335 85
National Fire	Hartford	56,999 21	3,239 91		585,114 11
New Hampshire Fire	Manchester, New Hampshire	48,557 32			599,711 08

Niagara	New York	60,260 16	864 29		1,531,165 24
North American	Boston	11,310 46	168 10		103,613 20
Northwestern National	Milwaukee	37,679 86			537,151 80
Oregon Fire and Marine	Portland	20,582 21			78,302 86
Orient	Hartford	53,963 92	715 00		639,609 35
Pacific Fire	New York	20,325 42	2,716 67		337,127 92
Pennsylvania	Pittsburgh	3,814 91	1,908 00	872 26	138,358 21
Pennsylvania Fire	Philadelphia	98,845 49		953 57	1,005,868 95
People's	Pittsburgh	4,606 42	4,791 50		170,539 88
Phenix	New York	139,694 85	11,193 95	20,064 80	5,073,318 78
Phœnix	Hartford	177,555 54	4,495 85		2,232,071 27
Prescott	Boston	15,665 42		50 00	212,284 98
Providence-Washington	Providence, Rhode Island	32,548 98			811,160 66
St. Paul	St. Paul, Minnesota	59,187 68	7,172 19		755,663 97
Security	New Haven	14,270 28		340 84	323,591 69
Springfield Fire and Marine	Springfield, Massachusetts	93,749 09	3,611 00		1,706,574 81
Sun Mutual	New Orleans	42,952 23			298,065 26
Teutonia	New Orleans	21,913 03			160,654 24
Traders'	Chicago	41,623 69	2,402 25		528,134 44
Union	Philadelphia	22,081 92	9,093 56		434,813 97
United States Fire	New York	8,830 17		235 00	161,918 20
Washington Fire and Marine	Boston	65,293 44			1,015,543 29
Westchester Fire	New York	25,806 25	2,234 46		783,314 77
Williamsburg City Fire	Brooklyn	15,420 35	10,485 07		662,679 71
Totals		$3,566,907 64	$242,265 72	$96,818 50	$55,837,011 58

TABLE No. 22.

Showing the various items composing the Expenditures of Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885—Companies of other States.

NAME.	Location.	Fire Losses.	Marine Losses.	Dividends.	Brokerage and Commission.
Ætna	Hartford	$1,285,853 75	$86,947 48	$720,000 00	$396,614 63
Agricultural	Watertown, New York	418,261 09		50,000 00	174,206 19
Allemannia	Pittsburgh	113,341 16		16,000 00	37,645 03
Amazon	Cincinnati	94,717 90		17,920 50	30,604 52
American	Newark	191,944 65		92,189 25	59,883 37
American Central	St. Louis	292,292 30		36,000 00	69,738 94
American Fire	Philadelphia	578,116 92		27,713 00	192,674 04
Boatman's Fire and Marine	Pittsburgh	115,520 29	3,598 41		37,035 80
Boylston Mutual	Boston	108,185 89	64,669 59	33,432 00	36,259 34
Citizens'	St. Louis	43,695 43	1,112 16	12,000 00	15,787 00
Citizens'	New York	376,812 54		29,946 80	117,766 95
Clinton Fire	New York	126,789 65		25,000 00	40,973 99
Concordia Fire	Milwaukee	122,115 40		15,960 00	50,046 24
Connecticut Fire	Hartford	533,657 11		80,000 00	141,902 22
Continental	New York	1,522,874 80	422,150 98	153,861 40	619,014 33
Eliot	Boston	62,677 81		19,840 00	30,716 72
Farragut Fire	New York	65,853 73		20,000 00	27,190 10
Fire Association of Philadelphia	Philadelphia	979,282 30		200,000 00	318,885 85
Firemen's	Baltimore	54,019 25		22,537 68	16,811 42
Firemen's	Newark	119,100 88		90,000 00	46,253 12
Franklin Fire	Philadelphia	226,770 02		80,040 00	74,782 41
German	Freeport, Illinois	533,887 47		40,000 00	344,160 33
German-American	New York	1,032,476 69		140,000 00	305,066 53
German Fire	Pittsburgh	159,176 51		24,000 00	56,775 81
Germania Fire	New York	916,654 81		100,000 00	180,405 53
Girard	Philadelphia	140,851 98		69,000 00	59,137 72
Glen's Falls	Glen's Falls, New York	297,288 49		30,000 00	103,589 25
Hanover Fire	New York	778,765 97		100,000 00	246,251 58
Hartford	Hartford	1,320,024 55		250,000 00	343,836 89
Home	New York	1,990,709 41		300,000 00	694,634 72
Howard	New York	164,513 53		31 50	55,663 91
Insurance Company of North America	Philadelphia	1,341,693 44	1,227,482 28	600,000 00	531,920 76
Insurance Company of the State of Pennsylvania	Philadelphia	55,562 72	68,940 07	20,110 00	32,230 56
Merchants'	Newark	377,489 75		40,000 00	105,279 22
Merchants'	New York	62,246 41		18,000 00	47,304 80

National Fire	New York	104,568 33		16,000 00	45,198 23
National Fire	Hartford	271,521 05		100,000 00	75,158 36
New Hampshire Fire	Manchester, New Hampshire	305,261 36		40,000 00	110,531 85
Niagara	New York	813,402 85		49,807 00	235,548 44
North American	Boston	49,594 34		12,000 00	15,378 12
Northwestern National	Milwaukee	250,042 84	9,951 12	60,000 00	79,081 45
Oregon Fire and Marine	Portland	17,311 92			6,878 27
Orient	Hartford	340,588 73		20,000 00	87,777 96
Pacific Fire	New York	189,817 38		24,000 00	57,872 16
Pennsylvania	Pittsburgh	112,514 66		488 50	23,412 35
Pennsylvania Fire	Philadelphia	544,140 43		40,000 00	204,294 23
People's	Pittsburgh	119,314 29		12,000 00	27,870 12
Phenix	New York	1,919,169 63	944,680 85	100,000 00	951,891 28
Phœnix	Hartford	1,236,635 48		280,000 00	334,572 03
Prescott	Boston	107,970 02		12,000 00	39,668 11
Providence-Washington	Providence, Rhode Island	259,184 22	248,283 52		129,243 50
Saint Paul	St. Paul, Minnesota	368,564 72	49,112 35	50,000 00	109,994 01
Security	New Haven	157,690 69	35,073 28	14,000 00	52,528 51
Springfield Fire and Marine	Springfield, Massachusetts	894,864 29		100,000 00	273,692 98
Sun Mutual	New Orleans	185,757 18	34,384 69	52,117 50	
Teutonia	New Orleans	82,069 34	14,745 57	12,500 00	
Traders'	Chicago	327,321 64	122 99	50,000 00	78,696 98
Union	Philadelphia	161,144 04	193,754 27	136 67	91,720 18
United States Fire	New York	53,599 02	4,523 27	25,010 00	26,198 40
Washington Fire and Marine	Boston	400,355 94	169,397 98		169,537 18
Westchester Fire	New York	369,065 99		30,000 00	131,888 74
Williamsburg City Fire	Brooklyn	315,700 99		49,915 00	143,664 83
Totals		$26,560,395 97	$3,578,930 86	$4,623,556 80	$9,143,348 09

TABLE No. 22—Continued.

NAME.	Location.	Office Salaries.	Taxes.	All other Expenditures.	Total Expenditures.
Ætna	Hartford	$152,152 55	$51,616 31	$191,006 98	$2,884,191 70
Agricultural	Watertown, New York	102,409 26	14,335 18	57,652 22	816,863 94
Allemannia	Pittsburgh	11,154 73	6,240 23	10,452 01	194,833 16
Amazon	Cincinnati	16,820 02	6,337 41	16,160 29	182,560 64
American	Newark	38,795 05	14,718 54	30,735 49	428,266 35
American Central	St. Louis	45,034 12	9,831 07	52,023 07	504,919 50
American Fire	Philadelphia	131,403 54	23,033 52	2,019 52	954,960 54
Boatman's Fire and Marine	Pittsburgh	10,537 93	4,774 73	12,036 58	183,503 74
Boyleston Mutual	Boston	27,500 00	2,692 14	25,374 30	298,113 26
Citizens'	St. Louis	7,000 00	5,350 60	5,754 16	90,699 35
Citizens'	New York	53,068 55	18,775 68	108,401 91	704,772 43
Clinton Fire	New York	20,529 53	4,743 96	34,326 55	252,363 68
Concordia Fire	Milwaukee	9,190 67	5,139 44	14,009 01	216,460 76
Connecticut Fire	Hartford	86,583 04	22,006 68	84,438 69	948,587 74
Continental	New York	309,412 86	82,145 09	251,133 77	3,360,593 23
Eliot	Boston	9,473 76	4,429 11	7,818 61	134,956 01
Farragut Fire	New York	22,920 00	3,666 25	17,628 72	157,258 80
Fire Association of Philadelphia	Philadelphia	105,753 57	50,478 91	25,567 24	1,679,967 87
Firemen's	Baltimore	9,197 04	5,948 07	10,517 42	119,030 88
Firemen's	Newark	17,103 98	9,133 06	11,420 24	293,011 28
Franklin Fire	Philadelphia	53,217 22	27,018 21	76,914 83	538,742 69
German	Freeport, Illinois	88,228 24	14,949 26	17,634 60	1,038,859 90
German-American	New York	148,091 72	56,815 97	170,461 13	1,852,912 04
German Fire	Pittsburgh	22,493 54	6,954 31	————	269,400 17
Germania Fire	New York	88,230 43	35,760 98	186,643 63	1,507,695 38
Girard	Philadelphia	40,472 31	15,885 89	25,461 26	350,809 16
Glen's Falls	Glen's Falls, New York	40,697 99	15,121 88	39,708 50	526,406 11
Hanover Fire	New York	170,958 44	38,472 91	146,081 15	1,480,530 05
Hartford	Hartford	171,331 85	51,959 33	173,783 87	2,310,936 49
Home	New York	407,449 52	80,657 41	273,075 34	3,746,526 40
Howard	New York	26,878 46	11,899 90	45,401 77	304,389 07
Insurance Company of North America	Philadelphia	129,877 88	119,234 75	253,387 46	4,203,596 57
Insurance Company of the State of Pennsylvania	Philadelphia	14,000 00	5,053 20	24,777 71	220,674 26
Merchants'	Newark	28,460 00	17,660 51	63,217 69	632,107 17
Merchants'	New York	16,970 31	6,769 33	14,118 97	165,409 82
National Fire	New York	18,595 16	3,460 28	14,069 16	201,891 16
National Fire	Hartford	33,753 92	13,647 43	32,973 79	527,054 55
New Hampshire Fire	Manchester, New Hampshire	27,523 18	16,114 95	33,585 47	533,016 81
Niagara	New York	108,768 00	31,019 47	128,492 72	1,367,038 48

North American	Boston	13,118 96	4,847 94	8,865 78	103,805 14
Northwestern National	Milwaukee	46,686 55	12,408 88	41,370 97	499,541 81
Oregon Fire and Marine	Portland	6,020 00	1,979 36	6,737 01	38,926 56
Orient	Hartford	42,115 71	13,662 98	55,551 88	559,697 26
Pacific Fire	New York	23,240 33	8,663 44	26,507 54	330,100 85
Pennsylvania	Pittsburgh	7,935 00	4,151 19	12,022 35	160,524 05
Pennsylvania Fire	Philadelphia	27,062 58	23,219 84	50,824 40	889,541 48
People's	Pittsburgh	7,700 00	4,190 74	9,738 53	180,813 68
Phenix	New York	278,763 85	66,799 22	317,409 98	4,578,714 81
Phœnix	Hartford	96,989 87	65,205 64	177,239 09	2,190,642 11
Prescott	Boston	12,645 50	6,971 34	14,412 97	193,667 94
Providence-Washington	Providence, Rhode Island	30,675 79	14,041 24	63,939 77	745,368 04
Saint Paul	St. Paul, Minnesota	37,888 60	10,631 28	44,344 78	670,535 74
Security	New Haven	21,209 58	2,519 82		283,021 88
Springfield Fire and Marine	Springfield, Massachusetts	71,485 41	43,028 77	159,035 99	1,542,107 44
Sun Mutual	New Orleans	65,906 39			338,165 76
Teutonia	New Orleans	22,084 49	10,390 48		141,789 88
Traders'	Chicago	34,588 34	20,846 32	14,002 78	525,579 05
Union	Philadelphia	32,479 88	15,509 83	67,951 79	562,696 66
United States Fire	New York	11,792 92	4,426 25	13,640 96	139,190 82
Washington Fire and Marine	Boston	23,200 00	26,821 60	135,979 01	925,291 71
Westchester Fire	New York	28,969 61	18,477 20	91,254 02	669,655 56
Williamsburg City Fire	Brooklyn	58,709 31	8,556 42	46,351 29	622,897 84
Totals	Totals	$3,823,307 04	$1,301,201 73	$4,045,446 72	$53,076,187 21

TABLE No. 23.

Showing amount of Risks written, Premiums received, and amount of Risks in force on the thirty-first day of December, 1885, with Premiums thereon, of Fire and Fire and Marine Insurance Companies doing business in California—Companies of other States.

NAME.	Location.	RISKS WRITTEN DURING THE YEAR.				
		Fire.	Premiums.	Marine.	Premiums.	Total Premiums.
Ætna	Hartford	$225,105,504 00	$2,652,391 32	$36,409,917 00	$162,986 26	$2,815,377 58
Agricultural	Watertown, N. Y.	88,813,674 00	808,330 22			808,330 22
Allemannia	Pittsburgh	15,971,650 00	208,996 11			208,996 11
Amazon	Cincinnati	13,808,448 00	198,810 10			198,810 10
American	Newark	48,024,820 00	446,752 27			446,752 27
American Central	St. Louis	43,521,584 00	579,398 32			579,398 32
American Fire	Philadelphia	88,113,852 00	1,169,218 71			1,169,218 71
Boatman's Fire and Marine	Pittsburgh	15,397,706 00	225,220 72	819,269 00	6,919 42	232,140 14
Boyleston Mutual	Boston	20,829,798 00	208,285 85	11,011,962 00	97,418 39	305,704 24
Citizens'	St. Louis	7,782,523 00	94,445 52	710,578 00	4,246 70	98,692 22
Citizens'	New York	82,593,520 00	745,154 96			745,154 96
Clinton Fire	New York	24,562,150 00	288,670 76			288,670 76
Concordia Fire	Milwaukee	18,572,670 00	255,230 66			255,230 66
Connecticut Fire	Hartford	87,661,313 00	1,101,421 68			1,101,421 68
Continental	New York	378,067,305 00	3,183,120 92	206,157,092 00	637,228 24	3,820,349 16
Eliot	Boston	13,851,882 00	177,120 14			177,120 14
Farragut Fire	New York	27,080,585 00	193,207 84			193,207 84
Fire Association of Philadelphia	Philadelphia	139,084,872 00	1,757,163 05			1,757,163 05
Firemen's	Baltimore	17,610,808 00	123,482 27			123,482 27
Firemen's	Newark	33,783,159 00	306,137 76			306,137 76
Franklin Fire	Philadelphia	53,462,142 00	607,372 83			607,372 83
German	Freeport, Ill.	80,276,166 00	1,371,676 19			1,371,676 19
German-American	New York	331,578,534 00	2,562,569 60			2,562,569 60
German Fire	Pittsburgh	23,000,228 00	284,324 75			284,324 75
Germania Fire	New York	159,332,014 00	1,533,260 80			1,533,260 80
Girard	Philadelphia	33,792,014 00	354,425 96			354,425 96
Glen's Falls	Glen's Falls, N. Y.	59,187,337 00	640,372 21			640,372 21
Hanover Fire	New York	140,586,101 00	1,472,519 61			1,472,519 61
Hartford Fire	Hartford	205,865,179 00	2,633,730 68			2,633,730 68
Home	New York	351,166,600 00	3,862,810 16			3,862,810 16
Howard	New York	50,028,172 00	474,348 34			474,348 34
Insurance Co. of North America	Philadelphia	194,075,223 00	2,527,398 67	217,564,978 00	1,557,682 45	4,085,081 12

Insurance Co. of the State of Pennsylvania	Philadelphia	15,122,570 00	160,754 19	8,139,059 00	66,715 23	227,469 42
Merchants'	Newark	60,485,886 00	653,679 56			653,679 56
Merchants'	New York	26,424,271 00	233,711 50			233,711 50
National Fire	New York	28,965,135 00	235,895 23			235,895 23
National Fire	Hartford	43,738,826 00	544,870 74			544,870 74
New Hampshire Fire	Manchester, N. H.	56,713,268 00	673,263 64			673,263 64
Niagara	New York	199,696,058 00	1,918,482 29			1,918,482 29
North American	Boston	11,338,429 00	109,821 94			109,821 94
Northwestern National	Milwaukee	46,559,117 00	533,542 90	1,866,594 00	14,199 06	547,741 96
Oregon Fire and Marine	Portland					
Orient	Hartford	50,972,716 00	694,166 63			694,166 63
Pacific Fire	New York	37,352,852 00	334,264 17			334,264 17
Pennsylvania	Pittsburgh	11,133,099 00	149,304 59			149,304 59
Pennsylvania Fire	Philadelphia	77,923,393 00	1,076,366 49			1,076,366 49
People's	Pittsburgh	12,104,195 00	183,019 37			183,019 37
Phenix	New York	375,656,927 00	4,394,660 45	190,086,622 00	1,377,439 22	5,772,099 67
Phœnix	Hartford	175,614,242 00	2,202,626 36			2,202,626 36
Prescott	Boston	18,601,517 00	231,462 43			231,462 43
Providence-Washington	Providence, R. I.	48,321,512 00	574,878 00	46,005,694 00	458,689 31	1,033,567 31
Saint Paul	St. Paul, Minn.	45,370,274 00	758,708 38	6,041,167 00	72,989 11	831,697 49
Security	New Haven	34,645,953 00	299,331 68	4,551,296 00	58,931 12	358,262 80
Springfield Fire and Marine	Springfield, Mass.	135,324,200 00	1,826,877 31			1,826,877 31
Sun Mutual	New Orleans	23,295,847 00	363,363 98	13,935,199 00	87,094 40	450,458 38
Teutonia	New Orleans	11,345,415 00	178,998 10	7,643,688 00	43,689 28	222,687 38
Traders'	Chicago	45,328,120 00	644,702 27	1,111,986 00	4,167 51	648,869 78
Union	Philadelphia	28,807,976 00	315,042 50	50,360,326 00	333,492 14	648,534 64
United States Fire	New York	17,665,453 00	135,708 56	468,992 00	10,565 48	146,274 04
Washington Fire and Marine	Boston	84,163,974 00	998,402 96	9,387,103 00	231,841 15	1,230,244 11
Westchester Fire	New York	85,149,720 00	825,943 57			825,943 57
Williamsburg City Fire	Brooklyn	84,826,982 00	715,690 53			715,690 53
Totals		$4,965,235,460 00	$55,014,909 30	$812,266,522 00	$5,226,294 47	$60,241,203 77

TABLE No. 23—Continued.

NAME.	Location.	Risks in Force December 31, 1885.				
		Fire.	Premiums.	Marine.	Premiums.	Total Premiums.
Ætna	Hartford	$288,605,997 00	$3,405,225 16	$604,788 00	$12,235 98	$3,417,461 14
Agricultural	Watertown, N. Y.	233,892,062 00	2,144,078 65			2,144,078 65
Allemannia	Pittsburgh	13,050,375 00	177,036 73			177,036 73
Amazon	Cincinnati	14,053,295 00	203,347 68			203,347 68
American	Newark	55,003,469 00	504,009 33			504,009 33
American Central	St. Louis	45,501,137 00	639,639 77			639,639 77
American Fire	Philadelphia	108,037,425 00	1,566,874 61			1,566,874 61
Boatman's Fire and Marine	Pittsburgh	13,474,449 00	200,619 89	21,500 00	1,308 00	201,927 89
Boylston Mutual	Boston	25,698,724 00	286,688 31	402,071 00	17,798 17	304,486 48
Citizens'	St. Louis	6,345,764 00	90,618 00			90,618 00
Citizens'	New York	83,342,011 00	769,657 52			769,657 52
Clinton Fire	New York	29,870,000 00	202,855 06			202,855 06
Concordia Fire	Milwaukee	24,983,580 00	336,983 16			336,983 16
Connecticut Fire	Hartford	92,457,892 00	1,126,277 72			1,126,277 72
Continental	New York	456,933,860 00	4,053,545 65	3,601,809 00	111,939 04	4,165,484 69
Eliot	Boston	13,441,059 00	183,555 97			183,555 97
Farragut Fire	New York	29,458,484 00	205,722 64			205,722 64
Fire Association of Philadelphia	Philadelphia	260,108,184 00	3,946,250 33			3,946,250 33
Firemen's	Baltimore	22,823,598 00	116,761 15			116,761 15
Firemen's	Newark	37,180,508 00	344,846 46			344,846 46
Franklin Fire	Philadelphia	135,995,580 00	2,326,918 64			2,326,918 64
German	Freeport, Ill.	130,516,752 00	2,352,245 65			2,352,245 65
German-American	New York	334,000,315 00	2,774,797 83			2,774,797 83
German Fire	Pittsburgh	26,035,136 00	325,129 59			325,129 59
Germania Fire	New York	172,692.464 00	1,615,289 49			1,615,289 49
Girard	Philadelphia	49,774,868 00	619,716 63			619,716 63
Glen's Falls	Glen's Falls, N. Y.	94,433,898 00	968,516 72			968,516 72
Hanover Fire	New York	163,471,067 00	1,734,313 17			1,734,313 17
Hartford Fire	Hartford	278,036,440 00	3,423,969 42			3,423,969 42
Home	New York	513,460,163 00	5,730,589 00			5,730,589 00
Howard	New York	31,998,130 00	351,904 12			351,904 12
Insurance Co. of North America	Philadelphia	313,125,776 00	4,180,754 91	19,330,666 00	238,729 24	4,419,484 15
Insurance Co. of the State of Pennsylvania	Philadelphia	16,558,546 00	157,587 14	1,071,553 00	20,835 95	178,423 09
Merchants'	Newark	66,019,087 00	718,217 90			718,217 90
Merchants'	New York	25,599,994 00	228,553 47			228,553 47
National Fire	New York	26,933,422 00	205,690 75			205,690 75

National Fire	Hartford	50,875,090 00	628,655 91			628,655 91
New Hampshire Fire	Manchester, N. H.	52,673,768 00	596,829 53			596,829 53
Niagara	New York	197,383,101 00	1,898,934 11			1,898,934 11
North American	Boston	13,380,478 00	136,307 10			136,307 10
Northwestern National	Milwaukee	58,190,306 00	715,305 98	40,000 00	250 00	715,555 98
Oregon Fire and Marine	Portland	2,772,711 00	61,047 75			61,047 75
Orient	Hartford	54,348,538 00	697,219 62			697,219 62
Pacific Fire	New York	39,983,646 00	355,598 67			355,598 67
Pennsylvania	Pittsburgh	10,395,016 00	134,531 85			134,531 85
Pennsylvania Fire	Philadelphia	102,583,090 00	1,559,650 61			1,559,650 61
People's	Pittsburgh	10,618,298 00	155,247 09			155,247 09
Phenix	New York	402,762,907 00	5,179,005 49	21,539,197 00	159,016 49	5,338,021 98
Phœnix	Hartford	216,963,431 00	2,566,573 99			2,566,573 99
Prescott	Boston	20,217,648 00	252,603 61			252,603 61
Providence-Washington	Providence, R. I.	55,384,843 00	627,710 98	2,147,796 00	117,881 09	745,592 07
Saint Paul	St. Paul, Minn.	57,750,597 00	782,765 69	427,257 00	20,643 54	803,409 23
Security	New Haven	20,567,595 00	261,044 04	557,045 00	23,246 33	284,290 37
Springfield Fire and Marine	Springfield, Mass.	167,195,139 00	2,240,004 62			2,240,004 62
Sun Mutual	New Orleans	13,756,681 00	278,512 23			278,512 23
Teutonia	New Orleans	4,357,362 00	66,828 93	209,227 00	1,847 50	68,676 43
Traders'	Chicago	35,008,791 00	518,474 73			518,474 73
Union	Philadelphia	29,184,159 00	367,791 27	560,936 00	26,147 87	393,939 14
United States Fire	New York	17,151,705 00	134,268 60	322,900 00	8,803 75	143,072 35
Washington Fire and Marine	Boston	71,307,209 00	856,096 12	2,266,445 00	93,405 48	949,501 60
Westchester Fire	New York	107,066,017 00	1,078,247 07			1,078,247 07
Williamsburg City Fire	Brooklyn	95,055,694 00	807,767 76			807,767 76
Totals		$6,139,848,331 00	$71,175,811 57	$53,103,191 00	$854,088 43	$72,029,900 00

TABLE No. 24.

Summary of Assets, Liabilities, Income, Expenditures, etc., and Net Surplus of Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885—Companies of Foreign Countries.

NAME.	Location.	Cash Capital paid up.	Total Assets.	Liabilities, Capital not included.	Total Income.
Atlas	London	$720,000 00	$9,022,696 75	$7,752,750 84	$696,635 72
British America	Toronto	500,000 00	1,117,658 29	628,213 04	892,787 37
Caledonia	Edinburgh	450,000 00	1,798,003 26	372,036 00	738,818 28
City of London Fire	London	1,000,000 00	1,731,337 92	883,676 85	1,549,698 18
Commercial Union	London	1,250,000 00	11,882,968 27	8,073,000 90	6,093,613 58
Fire Insurance Association	London	500,000 00	1,428,283 44	862,403 48	1,578,103 74
Guardian	London	5,000,000 00	20,120,828 88	12,543,149 24	2,704,125 12
Hamburg-Bremen	Hamburg	300,000 00	1,317,376 65	768,969 83	558,974 51
Hamburg-Magdeburg	Hamburg	625,000 00	703,192 87	43,768 23	93,186 19
Helvetia Swiss Fire	St. Gall, Switzerland	400,000 00	1,131,278 53	431,507 65	577,435 22
Imperial	London	3,500,000 00	9,581,953 00	2,409,626 00	4,303,511 00
Lancashire	Manchester	1,364,930 00	7,053,330 93	5,351,001 82	3,113,560 19
Lion Fire	London	560,069 00	1,137,687 00	541,659 00	920,267 00
Liverpool and London and Globe	Liverpool	1,228,200 00	39,155,098 27	28,914,153 95	6,966,568 65
London	London	2,241,375 00	17,108,079 60	11,090,858 51	3,985,600 15
London and Lancashire	Liverpool	926,000 00	3,124,595 84	1,283,321 04	2,537,179 25
London and Provincial Fire	London	246,185 00	795,762 24	460,201 38	861,074 60
Manchester Fire	Manchester	500,000 00	1,382,521 95	859,627 55	1,484,780 39
National	Dublin	500,000 00	2,799,539 00	1,921,980 00	897,610 00
National Fire and Marine	Dunedin, New Zealand	490,187 50	1,553,030 43	555,492 79	1,106,799 08
New Zealand	Auckland	1,000,000 00	2,753,946 00	838,100 00	1,239,200 00
North British and Mercantile	London	3,125,000 00	13,669,254 95	3,177,108 20	6,191,767 41
North German Fire	Hamburg	375,000 00	976,087 78	456,451 34	405,477 57
Northern	London	1,500,000 00	16,566,593 25	12,016,900 87	4,672,352 29
Norwich Union	Norwich, England	660,000 00	3,883,802 52	1,754,955 86	3,102,556 83
Phœnix	London	359,593 75	6,419,153 93	2,920,619 68	4,739,267 12
Prussian National	Stettin	562,500 00	1,472,813 14	451,361 63	549,814 36
Queen	Liverpool	873,169 75	5,997,407 68	4,584,718 45	2,951,711 97
Royal	Liverpool	1,447,725 00	30,289,897 04	19,826,325 32	5,279,500 00
Scottish Union and National	Edinburgh	1,412,855 00	16,407,072 46	14,425,111 26	3,111,803 87
South British Fire and Marine	Auckland	646,280 00	1,567,730 00	783,468 00	1,481,424 00
Svea	Gothenburg, Sweden	533,333 33	3,155,434 21	2,158,679 39	1,648,094 68
Transatlantic Fire	Hamburg	300,000 00	1,192,662 21	678,452 03	552,221 73

Union Fire and Marine	Christchurch, New Zealand	500,000 00	937,065 32	292,759 06	607,317 63
United Fire Reassurance	Manchester	500,000 00	1,347,651 00	749,440 00	1,161,840 00
Western	Toronto	400,000 00	1,185,594 35	792,003 58	1,377,149 90
Totals		$36,497,403 33	$241,767,388 96	$151,653,852 77	$80,731,827 58

TABLE No. 24—Continued.

NAME.	Location.	Total Expenditures.	Losses Incurred during the Year.	Net Surplus.
Atlas	London	$621,660 18	$378,734 55	$549,945 91
British America	Toronto	836,445 98	546,233 31	
Caledonia	Edinburgh	513,904 74	249,814 20	975,967 26
City of London Fire	London	1,576,060 43	1,065,150 57	
Commercial Union	London	5,596,931 90	3,281,909 00	2,559,967 37
Fire Insurance Association	London	1,708,835 73	1,147,407 52	65,879 96
Guardian	London	2,418,756 68	1,322,562 00	2,577,679 64
Hamburg-Bremen	Hamburg	521,909 49	305,114 25	248,406 82
Hamburg-Magdeburg	Hamburg	89,109 30	58,406 98	34,424 64
Helvetia Swiss Fire	St. Gall, Switzerland	458,440 30	287,812 26	299,770 88
Imperial	London	4,039,125 00	2,364,155 00	3,672,327 00
Lancashire	Manchester	3,120,987 31	1,635,940 00	337,399 11
Lion Fire	London	923,084 00	615,267 00	35,959 00
Liverpool and London and Globe	Liverpool	6,423,368 99	3,503,753 25	9,012,744 32
London	London	3,846,657 20	1,887,690 95	3,775,846 19
London and Lancashire	Liverpool	2,294,464 95	1,315,267 25	915,274 80
London and Provincial Fire	London	985,144 18	740,275 00	89,375 86
Manchester Fire	Manchester	1,424,558 70	1,079,605 00	22,894 40
National	Dublin	924,377 00	620,330 00	377,559 00
National Fire and Marine	Dunedin, New Zealand	1,146,567 67	821,883 00	546,501 86
New Zealand	Auckland	1,235,315 00	791,985 00	915,846 00
North British and Mercantile	London	5,610,063 50	3,076,143 00	7,367,146 75
North German Fire	Hamburg	432,981 01	282,720 54	144,636 44
Northern	London	3,870,409 91	1,675,819 00	3,049,692 38
Norwich Union	Norwich, England	2,818,520 14	1,886,943 37	1,468,846 66
Phœnix	London	4,125,611 92	2,666,282 33	3,138,940 50
Prussian National	Stettin	403,564 36	397,329 37	458,951 51
Queen	Liverpool	2,774,298 75	1,819,977 57	565,979 78
Royal	Liverpool	4,934,480 00	2,766,000 00	9,015,846 72
Scottish Union and National	Edinburgh	2,599,808 75	627,203 43	713,346 20
South British Fire and Marine	Auckland	1,418,574 00	1,090,295 00	137,982 00
Svea	Gothenburg, Sweden	1,578,040 56	944,811 47	463,421 49
Transatlantic Fire	Hamburg	492,088 95	361,172 86	214,210 18
Union Fire and Marine	Christchurch, New Zealand	565,371 74	331,859 56	144,306 26
United Fire Reassurance	Manchester	1,082,755 00	830,795 00	98,211 00
Western	Toronto	1,320,907 54	880,828 21	
Totals		$74,763,180 86	$43,657,476 80	$53,995,287 89

TABLE NO. 25.

Showing the Assets of the Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885—Companies of Foreign Countries.

NAME.	Location.	Real Estate.	Loans on Bonds and Mortgages.	Stocks and Bonds Owned by the Company.	Collateral Loans.	Cash in Office and Banks.
Atlas	London	$48,153 94	$2,105,590 00	$741,441 10	$313,377 50	$151,037 70
British America	Toronto	90,000 00	1,350 00	859,903 15	----------	88,389 26
Caledonian	Edinburgh	672,166 84	354,500 00	399,838 68	153,403 94	24,106 62
City of London Fire	London	----------	37,050 00	1,291,486 22	----------	63,406 10
Commercial Union	London	1,100,264 33	380,188 96	3,154,950 81	6,666 66	1,087,767 00
Fire Insurance Association	London	----------	----------	974,405 24	----------	163,189 90
Guardian	London	146,575 00	7,557,682 27	8,002,688 87	2,443,395 90	665,342 20
Hamburg-Bremen	Hamburg	14,975 00	59,930 36	1,062,646 37	----------	109,979 13
Hamburg-Magdeburg	Hamburg	57,405 61	261,800 00	181,457 82	43,500 00	97,848 26
Helvetia Swiss Fire	St. Gall, Switzerland	55,000 00	484,589 69	141,776 23	----------	304,768 88
Imperial	London	1,451,974 00	180,750 00	6,908,011 00	----------	80,806 00
Lancashire	Manchester	288,417 96	2,733,819 70	2,650,248 41	124,441 78	314,255 15
Lion Fire	London	----------	218,595 00	568,733 00	44,000 00	98,248 00
Liverpool and London and Globe	Liverpool	4,083,088 38	9,455,903 46	19,479,667 37	1,853,321 92	1,610,207 00
London	London	----------	10,850,433 31	4,323,909 64	977,620 12	487,823 66
London and Lancashire	Liverpool	337,588 79	43,500 00	2,205,894 19	28,700 00	236,988 18
London and Provincial Fire	London	125,000 00	----------	436,700 00	----------	52,732 68
Manchester Fire	Manchester	165,000 00	265,600 00	466,876 00	33,625 00	42,760 35
National	Dublin	205,016 00	874,715 00	1,309,935 00	219,986 00	24,395 00
National Fire and Marine	Dunedin, New Zealand	136,222 82	948,330 25	60,827 10	----------	24,873 70
New Zealand	Auckland	969,820 00	423,606 00	854,448 00	251,680 00	222,254 00
North British and Mercantile	London	1,622,100 70	827,718 15	8,728,365 44	150,000 00	771,393 90
North German Fire	Hamburg	66,140 02	17,125 00	444,169 24	----------	228,676 85
Northern	London	953,982 09	1,650,324 52	8,779,971 29	3,369,867 06	268,081 96
Norwich Union	Norwich, England	182,320 04	190,000 00	2,312,301 30	----------	780,223 54
Phœnix	London	718,698 62	1,242,742 02	3,785,450 92	----------	120,722 14
Prussian National	Stettin	50,000 00	545,162 50	569,443 30	22,250 00	175,549 58
Queen	Liverpool	1,190,834 99	882,026 62	2,697,540 80	27,355 96	280,731 26
Royal	Liverpool	2,941,722 87	7,590,113 16	11,860,150 43	4,910,234 11	992,955 48
Scottish Union and National	Edinburgh	931,095 48	9,572,156 62	3,347,718 48	1,608,985 68	301,423 12
South British Fire and Marine	Auckland	496,750 00	78,099 00	467,760 00	32,275 00	47,800 00
Svea	Gothenburg, Sweden	292,800 00	1,294,813 68	1,071,404 89	238,013 72	72,470 87

TABLE NO. 25—Continued.

NAME.	Location.	Real Estate.	Loans on Bonds and Mortgages.	Stocks and Bonds Owned by the Company.	Collateral Loans.	Cash in Office and Banks.
Transatlantic Fire	Hamburg	$33,625 00		$548,274 50	$50,000 00	$394,117 19
Union Fire and Marine	Christchurch, N. Z.	26,000 00	$569,420 00	61,774 38		126,085 48
United Fire Reassurance	Manchester			980,026 00	4,280 00	135,375 00
Western	Toronto	70,000 00	7,450 00	645,271 36		228,929 18
Totals		$19,522,738 48	$61,705,085 27	$102,375,466 53	$16,906,980 35	$10,875,714 32

TABLE No. 25—Continued.

NAME.	Location.	Interest Due and Accrued.	Premiums in course of Collection.	Bills Receivable, not matured, taken for Fire and Marine Risks.	All other Assets.	Total Assets.
Atlas	London	$31,761 14	$83,923 00	--------	$5,547,412 37	$9,022,696 75
British America	Toronto	1,077 92	57,450 59	$18,587 37	900 00	1,117,658 29
Caledonian	Edinburgh	17,186 78	81,722 70	--------	95,077 70	1,798,003 26
City of London Fire	London	12,965 23	313,776 31	12,654 06	--------	1,731,337 92
Commercial Union	London	6,098 19	907,377 75	53,801 58	5,185,852 99	11,882,968 27
Fire Insurance Association	London	12,702 50	277,985 80	--------	--------	1,428,283 44
Guardian	London	272,563 62	334,792 17	30,963 58	666,825 27	20,120,828 88
Hamburg-Bremen	Hamburg	--------	65,077 35	2,786 67	1,981 77	1,317,376 65
Hamburg-Magdeburg	Hamburg	3,570 02	57,023 66	--------	587 50	703,192 87
Helvetia Swiss Fire	St. Gall, Switzerland	10,203 18	105,915 85	--------	29,024 70	1,131,278 53
Imperial	London	--------	753,623 00	50,591 00	156,198 00	9,581,953 00
Lancashire	Manchester	53,968 46	834,552 98	20,877 28	32,749 21	7,053,330 93
Lion Fire	London	10,722 00	175,713 00	10,933 00	10,743 00	1,137,687 00
Liverpool and London and Globe	Liverpool	303,388 19	829,802 77	--------	1,539,719 18	39,155,098 27
London	London	31,906 68	373,174 47	54,066 47	9,145 25	17,108,079 60
London and Lancashire	Liverpool	19,185 04	226,104 73	20,365 09	6,269 82	3,124,595 84
London and Provincial Fire	London	6,043 34	107,060 10	7,579 75	60,646 37	795,762 24
Manchester Fire	Manchester	11,636 85	396,948 75	--------	75 00	1,382,521 95
National	Dublin	37,707 00	127,785 00	--------	--------	2,799,539 00
National Fire and Marine	Dunedin, New Zealand	29,831 20	352,945 36	--------	--------	1,553,030 43
New Zealand	Auckland	14,191 00	7,644 00	9,859 00	444 00	2,753,946 00
North British and Mercantile	London	4,877 25	113,564 60	159,804 85	1,291,430 06	13,669,254 95
North German Fire	Hamburg	--------	219,976 67	--------	--------	976,087 78
Northern	London	188,123 65	66,503 63	72,564 27	1,217,174 78	16,566,593 25
Norwich Union	Norwich, England	27,693 86	391,263 78	--------	--------	3,883,802 52
Phœnix	London	20,045 00	474,902 91	45,514 82	11,077 50	6,419,153 93
Prussian National	Stettin	2,178 31	--------	--------	108,229 45	1,472,813 14
Queen	Liverpool	47,204 31	494,700 00	--------	377,013 74	5,997,407 68
Royal	Liverpool	350,749 52	678,153 22	--------	965,818 25	30,289,897 04
Scottish Union and National	Edinburgh	104,041 73	505,250 93	--------	36,400 42	16,407,072 46
South British Fire and Marine	Auckland	20,306 00	365,911 00	15,370 00	43,459 00	1,567,730 00
Svea	Gothenburg, Sweden	11,884 35	19,552 67	127,386 11	27,107 92	3,155,434 21
Transatlantic Fire	Hamburg	--------	137,031 70	--------	29,613 82	1,192,662 21
Union Fire and Marine	Christchurch, N. Z.	14,635 13	122,437 04	15,588 45	1,124 84	937,035 32

TABLE No. 25—Continued.

NAME.	Location.	Interest Due and Accrued.	Premiums in course of Collection.	Bills Receivable, not matured, taken for Fire and Marine Risks.	All other Assets.	Total Assets.
United Fire Reassurance	Manchester	$8,970 00			$219,000 00	$1,347,651 00
Western	Toronto	2,263 21	$122,605 88	$40,622 96	68,451 76	1,185,594 35
Totals		$1,689,680 66	$10,182,253 37	$769,916 31	$17,739,553 67	$241,767,388 96

TABLE No. 26.

Showing the various items composing the Liabilities, except Capital Stock, of Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885—Companies of Foreign Countries.

NAME.	Location.	Losses Adjusted.	Losses Unadjusted.	Losses Resisted.	Cash Dividends Remaining Unpaid.	Fire Reinsurance.
Atlas	London		$63,795 14		$49,320 50	$305,727 45
British America	Toronto	$42,874 55	36,325 06	$13,017 68	22,914 33	487,202 20
Caledonian	Edinburgh		84,600 48		6,119 80	279,600 72
City of London Fire	London		262,500 00		239 20	530,906 07
Commercial Union	London		652,200 00		485 00	2,107,866 12
Fire Insurance Association	London	238,847 67				488,700 88
Guardian	London	236,861 98			27,615 06	982,500 00
Hamburg-Bremen	Hamburg	36,760 00			146 62	658,962 63
Hamburg-Magdeburg	Hamburg		8,195 00		340 00	35,233 23
Helvetia Swiss Fire	St. Gall, Switzerland	35,556 00			34 00	244,563 43
Imperial	London	843,740 00			11,578 00	1,330,790 00
Lancashire	Manchester	451,187 29			98,993 20	1,323,757 31
Lion Fire	London		132,215 00	11,040 00		360,339 00
Liverpool and London and Globe	Liverpool	540,620 00			11,589 92	3,914,297 88
London	London	405,239 31			47,047 50	881,783 25
London and Lancashire	Liverpool	10,192 50	150,291 15	24,068 00	94 62	1,060,835 13
London and Provincial Fire	London	153,638 70				283,000 00
Manchester Fire	Manchester		306,075 00		331 25	481,439 00
National	Dublin	37,500 00			11,485 00	424,935 00
National Fire and Marine	Dunedin, New Zealand		155,475 00		2,416 32	297,507 50
New Zealand	Auckland		212,050 00			307,692 00
North British and Mercantile	London	686,368 80			12,518 83	1,914,184 50
North German Fire	Hamburg	53,941 50				217,348 47
Northern	London	554,675 66			11,226 90	1,443,422 13
Norwich Union	Norwich, England	324,773 68			1,945 50	1,382,055 43
Phœnix	London	630,425 00			12,847 50	2,277,347 18
Prussian National	Stettin		20,492 50	13,407 50	81 00	313,370 50
Queen	Liverpool	158,035 41			706 64	1,608,207 45
Royal	Liverpool	342,293 25			11,533 21	3,212,111 62
Scottish Union and National	Edinburgh	90,716 10			8,471 61	547,087 93
South British Fire and Marine	Auckland		162,375 00		545 00	375,822 00
Svea	Gothenburg, Sweden		88,000 00		53,333 33	320,938 67
Transatlantic Fire	Hamburg	95,754 25			33 75	264,483 74

TABLE No. 26—Continued.

NAME.	Location.	Losses Adjusted.	Losses Unadjusted.	Losses Resisted.	Cash Dividends Remaining Unpaid.	Fire Reinsurance.
Union Fire and Marine	Christchurch, N. Z.	$46,500 00			$3,523 10	$85,178 66
United Fire Reassurance	Manchester		$219,990 00		25,000 00	427,140 00
Western	Toronto	90,787 28		$11,400 00	661 73	663,345 52
Totals		$6,107,288 93	$2,554,579 33	$72,933 18	$433,178 42	$31,839,682 60

TABLE NO. 26—Continued.

NAME.	Location.	Marine Reinsurance.	Liability under Life Department.	All other Claims.	Total Liabilities.	Net Surplus.
Atlas	London		$7,314,528 00	$19,379 75	$7,752,750 84	$549,945 91
British America	Toronto	$23,860 66		2,018 56	628,213 04	
Caledonian	Edinburgh			1,715 00	372,036 00	975,967 26
City of London Fire	London			90,031 58	883,676 85	
Commercial Union	London	472,236 00	4,786,073 52	54,140 26	8,073,000 90	2,559,967 37
Fire Insurance Association	London			134,854 93	862,403 48	65,879 96
Guardian	London		11,169,142 83	127,029 37	12,543,149 24	2,577,679 64
Hamburg-Bremen	Hamburg			73,100 58	768,969 83	248,406 82
Hamburg-Magdeburg	Hamburg				43,768 23	34,424 64
Helvetia Swiss Fire	St. Gall, Switzerland			151,354 22	431,507 65	299,770 88
Imperial	London			223,518 00	2,409,626 00	3,672,327 00
Lancashire	Manchester		3,477,064 02		5,351,001 82	337,399 11
Lion Fire	London			38,065 00	541,659 00	35,959 00
Liverpool and London and Globe	Liverpool		23,466,822 98	980,823 17	28,914,153 95	9,012,744 32
London	London	339,006 00	9,352,796 83	64,985 62	11,090,858 51	3,775,846 19
London and Lancashire	Liverpool			37,839 64	1,283,321 04	915,274 80
London and Provincial Fire	London			23,562 68	460,201 38	89,375 86
Manchester Fire	Manchester			71,782 30	859,627 55	22,894 40
National	Dublin		1,375,690 00	72,370 00	1,921,980 00	377,559 00
National Fire and Marine	Dunedin, New Zealand	94,577 50		5,516 47	555,492 79	546,501 86
New Zealand	Auckland	121,138 00		197,220 00	838,100 00	915,846 00
North British and Mercantile	London			564,036 07	3,177,108 20	7,367,146 75
North German Fire	Hamburg			185,161 37	456,451 34	144,636 44
Northern	London		9,830,030 33	177,545 85	12,016,900 87	3,049,692 38
Norwich Union	Norwich, England			46,181 25	1,754,955 86	1,468,846 66
Phœnix	London				2,920,619 68	3,138,940 50
Prussian National	Stettin	65,795 86		38,214 27	451,361 63	458,951 51
Queen	Liverpool		2,679,947 54	137,821 41	4,584,718 45	565,979 78
Royal	Liverpool		15,931,156 00	329,231 24	19,826,325 32	9,015,846 72
Scottish Union and National	Edinburgh		13,717,055 62	61,780 00	14,425,111 26	713,346 20
South British Fire and Marine	Auckland	147,471 00		97,255 00	783,468 00	137,982 00
Svea	Gothenburg, Sweden		1,607,675 31	88,732 08	2,158,679 39	463,421 49
Transatlantic Fire	Hamburg			318,180 29	678,452 03	214,210 18
Union Fire and Marine	Christchurch, N. Z.	67,561 86		89,995 44	292,759 06	144,306 26
United Fire Reassurance	Manchester			77,310 00	749,440 00	98,211 00
Western	Toronto	25,809 05			792,003 58	
Totals		$1,357,455 93	$104,707,982 98	$4,580,751 40	$151,653,852 77	$53,995,287 89

TABLE No. 27.

Showing the various items composing the Incomes of Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885—Companies of Foreign Countries.

NAME.	Location.	Fire Premiums.	Marine Premiums.	Life Premiums.	Interest and Dividends from all sources.	From all other sources.	Total Income.
Atlas	London	$610,304 00			$64,318 65	$22,013 07	$696,635 72
British America	Toronto	755,084 43	$94,229 71		33,653 89	9,819 34	892,787 37
Caledonian	Edinburgh	561,297 04			64,646 94	112,874 30	738,818 28
City of London Fire	London	1,501,325 72			48,151 84	220 62	1,549,698 18
Commercial Union	London	4,102,313 98	973,716 73	$795,572 31	221,881 19	129 37	6,093,613 58
Fire Insurance Association	London	1,541,620 44			36,483 30		1,578,103 74
Guardian	London	2,183,469 27			296,842 39	223,813 46	2,704,125 12
Hamburg-Bremen	Hamburg	522,808 77			36,165 74		558,974 51
Hamburg-Magdeburg	Hamburg	69,749 97			23,436 22		93,186 19
Helvetia Swiss Fire	St. Gall, Switzerland	538,081 46			39,353 76		577,435 22
Imperial	London	3,992,375 00			310,695 00	441 00	4,303,511 00
Lancashire	Manchester	3,006,251 86			107,308 33		3,113,560 19
Lion Fire	London	889,158 00			30,927 00	182 00	920,267 00
Liverpool and London and Globe	Liverpool	6,261,929 09			704,639 56		6,966,568 65
London	London	1,487,441 45	1,090,208 38	736,637 12	651,938 35	19,374 85	3,985,600 15
London and Lancashire	Liverpool	2,450,062 06			81,659 27	5,457 92	2,537,179 25
London and Provincial Fire	London	841,008 15			20,066 45		861,074 60
Manchester Fire	Manchester	1,446,818 25			32,355 89	5,606 25	1,484,780 39
National	Dublin	855,940 00			36,580 00	5,090 00	897,610 00
National Fire and Marine	Dunedin, New Zealand	681,593 93	346,685 14		68,634 16	9,885 85	1,106,799 08
New Zealand	Auckland	566,204 00	533,371 00		90,751 00	48,874 00	1,239,200 00
North British and Mercantile	London	5,742,553 58			448,592 58	621 25	6,191,767 41
North German Fire	Hamburg	384,696 94			20,780 63		405,477 57
Northern	London	2,886,844 27		958,443 42	641,238 12	185,826 48	4,672,352 29
Norwich Union	Norwich, England	2,987,231 45			106,007 28	9,318 10	3,102,556 83
Phœnix	London	4,519,595 17			219,671 95		4,739,267 12
Prussian National	Stettin	465,072 07	30,795 56		53,946 73		549,814 36
Queen	Liverpool	2,842,398 60			108,937 50	375 87	2,951,711 97
Royal	Liverpool	4,827,000 00			452,500 00		5,279,500 00
Scottish Union and National	Edinburgh	1,041,160 58		1,436,784 08	614,692 57	19,166 64	3,111,803 87
South British Fire and Marine	Auckland	801,881 00	624,084 00		41,169 00	14,290 00	1,481,424 00
Svea	Gothenburg, Sweden	1,054,307 70		451,865 59	141,921 39		1,648,094 68

Transatlantic Fire	Hamburg	518,363 94			25,438 48	8,419 31	552,221 73
Union Fire and Marine	Christchurch, N. Z.	244,617 84	307,821 44		46,022 10	8,856 25	607,317 63
United Fire Reassurance	Manchester	1,134,980 00			26,860 00		1,161,840 00
Western	Toronto	1,086,982 37	253,795 72		36,371 81		1,377,149 90
Totals		$65,402,522 38	$4,254,707 68	$4,379,302 52	$5,984,639 07	$710,655 93	$80,731,827 58

TABLE No. 28.

Showing the various items composing the Expenditures of Fire and Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885—Companies of Foreign Countries.

NAME.	Location.	Fire Losses.	Marine Losses.	Life Expenses.	Dividends.	Brokerage and Commissions.
Atlas	London	$345,737 43			$96,000 00	$82,621 15
British America	Toronto	488,807 13	$52,985 41		34,811 00	144,419 03
Caledonian	Edinburgh	249,814 20			83,250 00	89,881 86
City of London Fire	London	1,084,135 57			29,909 80	341,778 29
Commercial Union	London	2,742,321 50	683,978 46	$528,434 09	187,567 50	632,111 15
Fire Insurance Association	London	1,203,700 93				249,844 30
Guardian	London	1,322,562 02			450,000 00	367,460 58
Hamburg-Bremen	Hamburg	318,159 25			34,488 37	127,968 99
Hamburg-Magdeburg	Hamburg	50,211 98			19,185 00	
Helvetia Swiss Fire	St. Gall, Switzerland	287,812 26				85,722 78
Imperial	London	2,364,155 00			480,000 00	778,530 00
Lancashire	Manchester	2,076,694 50			153,577 12	463,074 78
Lion Fire	London	615,267 00				169,613 00
Liverpool and London and Globe	Liverpool	3,503,753 25			767,625 00	952,863 17
London	London	869,568 41	1,018,122 54	868,077 58	448,275 00	247,994 14
London and Lancashire	Liverpool	1,408,320 50			74,177 00	456,490 96
London and Provincial Fire	London	702,884 66				165,161 86
Manchester Fire	Manchester	975,753 08			50,000 00	302,386 20
National	Dublin	618,330 00			69,387 00	176,965 00
National Fire and Marine	Dunedin, New Zealand	520,032 47	301,851 02		36,771 56	126,835 47
New Zealand	Auckland	437,586 00	354,399 00		150,000 00	
North British and Mercantile	London	3,039,292 81			750,000 00	966,989 12
North German Fire	Hamburg	247,140 96			30,000 00	93,280 52
Northern	London	1,665,577 65		713,274 95	298,132 75	447,916 10
Norwich Union	Norwich, England	1,724,174 12			220,500 00	563,496 93
Phœnix	London	2,576,507 33			352,905 00	859,273 02
Prussian National	Stettin	212,691 68	12,120 46			103,200 07
Queen	Liverpool	1,819,977 57			87,316 97	
Royal	Liverpool	2,766,000 00			675,605 00	
Scottish Union and National	Edinburgh	626,394 48		1,417,256 71	254,313 90	135,697 33
South British Fire and Marine	Auckland	576,603 00	447,117 00		62,627 00	160,485 00
Svea	Gothenburg, Sweden	560,625 20		682,984 04	93,333 33	125,458 50
Transatlantic Fire	Hamburg	342,028 96			27,054 00	27,702 44

Union Fire and Marine	Christchurch, New Zealand	153,746 30	200,013 26		50,272 02	
United Fire Reassurance	Manchester	812,395 00			12,500 00	193,180 00
Western	Toronto	708,280 78	172,547 43		32,000 00	214,652 78
Totals		$40,017,042 98	$3,243,134 58	$4,210,027 37	$6,111,584 32	$9,853,054 52

TABLE NO. 28—Continued.

NAME.	Location.	Office Salaries.	Taxes.	All other Expenditures.	Total Expenditures.
Atlas	London	$97,145 85		$155 75	$621,660 18
British America	Toronto	29,568 86	$15,902 80	69,951 75	836,445 98
Caledonian	Edinburgh	52,680 76	978 92	37,299 00	513,904 74
City of London Fire	London	38,449 57	21,181 29	60,605 91	1,576,060 43
Commercial Union	London	795,530 10		26,989 10	5,596,931 90
Fire Insurance Association	London	108,976 27	26,844 13	119,470 10	1,708,835 73
Guardian	London	278,546 96		187 12	2,418,756 68
Hamburg-Bremen	Hamburg	20,975 61	20,317 27		521,909 49
Hamburg-Magdeburg	Hamburg	15,403 66	4,308 66		89,109 30
Helvetia Swiss Fire	St. Gall, Switzerland	35,001 63	8,534 69	41,368 94	458,440 30
Imperial	London	148,315 00		268,125 00	4,039,125 00
Lancashire	Manchester	362,831 60	33,785 10	31,024 21	3,120,987 31
Lion Fire	London	124,163 00	12,861 00	1,180 00	923,084 00
Liverpool and London and Globe	Liverpool	433,352 48	72,482 42	693,292 67	6,423,368 99
London	London	221,085 41	31,561 00	141,973 12	3,846,657 20
London and Lancashire	Liverpool	227,673 38	47,790 00	80,013 11	2,294,464 95
London and Provincial Fire	London	106,425 84	10,671 82		985,144 18
Manchester Fire	Manchester	63,293 43	1,901 75	31,224 24	1,424,558 70
National	Dublin	59,695 00			924,377 00
National Fire and Marine	Dunedin, New Zealand	92,682 10	3,480 35	64,914 70	1,146,567 67
New Zealand	Auckland	276,763 00	6,144 00	10,423 00	1,235,315 00
North British and Mercantile	London	807,759 31	21,644 33	24,377 93	5,610,063 50
North German Fire	Hamburg	51,420 05		11,139 48	432,981 01
Northern	London	552,063 25	46,999 13	146,446 08	3,870,409 91
Norwich Union	Norwich, England	150,793 27	32,731 22	126,824 60	2,818,520 14
Phœnix	London	324,471 75	11,553 39	901 43	4,125,611 92
Prussian National	Stettin	28,475 00	3,655 00	43,422 15	403,564 36
Queen	Liverpool			867,004 21	2,774,298 75
Royal	Liverpool			1,522,875 00	4,964,480 00
Scottish Union and National	Edinburgh	155,229 02	10,917 31		2,599,808 75
South British Fire and Marine	Auckland	156,657 00	10,110 00	4,975 00	1,418,574 00
Svea	Gothenburg, Sweden	108,124 25	7,515 24		1,578,040 56
Transatlantic Fire	Hamburg	41,142 91	11,026 26	43,134 38	492,088 95
Union Fire and Marine	Christchurch, New Zealand			161,340 16	565,371 74
United Fire Reassurance	Manchester	54,975 00	4,335 00	5,370 00	1,082,755 00
Western	Toronto	51,825 81	26,041 08	115,559 66	1,320,907 54
Totals	Totals	$6,071,496 13	$505,273 16	$4,751,567 80	$74,763,180 86

TABLE NO. 29.

Showing amount of Risks written, Premiums received, and amount of Risks in force on the thirty-first day of December, 1885, with Premiums thereon, of Fire, and Fire and Marine Insurance Companies doing business in California—Companies of Foreign Countries.

NAME.	Location.	Risks Written during the Year.				
		Fire.	Premiums.	Marine.	Premiums.	Total Premiums.
Atlas	London	$1,169,147 00	$19,311 60			$19,311 60
British America	Toronto	68,905,778 00	932,264 88	$7,221,299 00	$105,329 03	1,037,593 91
Caledonian	Edinburgh	301,262,565 00	684,528 02			684,528 02
City of London Fire	London	253,941,984 00	1,692,946 56			1,692,946 56
Commercial Union	London	1,004,575,200 00	4,598,980 63	127,370,520 00	1,268,380 00	5,867,360 63
Fire Insurance Association	London	250,702,010 00	1,681,238 47			1,681,238 47
Guardian	London	673,170,835 00	2,183,470 00			2,183,470 00
Hamburg-Bremen	Hamburg	199,399,522 00	1,127,903 83			1,127,903 83
Hamburg-Magdeburg	Hamburg	40,737,322 00	251,720 53			251,720 53
Helvetia Swiss Fire	St. Gall, Switzerland	508,687,856 00	975,301 94			975,301 94
Imperial	London	1,323,260,635 00	4,473,580 00			4,473,580 00
Lancashire	Manchester	1,107,254,306 00	3,321,762 92			3,321,762 92
Lion Fire	London	220,152,285 00	1,096,110 00			1,096,110 00
Liverpool and London and Globe	Liverpool	1,971,882,805 00	8,210,505 90			8,210,505 90
London	London	472,042,115 00	1,487,441 45	108,488,310 00	1,298,559 93	2,786,001 38
London and Lancashire	Liverpool	706,742,214 00	2,544,272 82			2,544,272 82
London and Provincial Fire	London	162,246,000 00	1,060,065 00			1,060,065 00
Manchester Fire	Manchester	520,068,080 00	1,560,204 00			1,560,204 00
National	Dublin					
National Fire and Marine	Dunedin, New Zealand	209,635,505 00	840,274 00	35,118,470 00	527,053 08	1,367,327 08
New Zealand	Auckland	116,683,425 00	731,600 00	68,124,605 00	787,805 00	1,519,405 00
North British and Mercantile	London	2,260,042,660 00	5,742,553 58			5,742,553 58
North German Fire	Hamburg	246,774,163 00	810,002 94			810,002 94
Northern	London	939,836,023 00	2,886,844 27			2,886,844 27
Norwich Union	Norwich, England	1,209,838,000 00	3,273,993 40			3,273,993 40
Phœnix	London	1,366,408,160 00	4,554,694 35			4,554,694 35
Prussion National	Stettin	415,731,239 00	824,258 20	11,745,008 00	43,231 84	867,490 04
Queen	Liverpool	748,812,935 00	2,842,398 60			2,842,398 60
Royal	Liverpool		4,827,000 00			4,827,000 00
Scottish Union and National	Edinburgh	488,084,226 00	1,603,845 23			1,603,845 23

TABLE No. 29—Continued.

NAME.	Location.	Risks Written during the Year.				
		Fire.	Premiums.	Marine.	Premiums.	Total Premiums.
South British Fire and Marine	Auckland	$167,056,500 00	$1,041,390 00	$73,343,572 00	$1,006,072 00	$2,047,462 00
Svea	Gothenburg, Sweden	307,749,907 00	1,393,983 31			1,393,983 31
Transatlantic Fire	Hamburg	215,671,444 00	1,217,079 87			1,217,079 87
Union Fire and Marine	Christchurch, N. Z.	39,640,570 00	310,213 16	40,131,255 00	479,260 17	789,473 33
United Fire Reassurance	Manchester	370,717,335 00	1,818,087 00			1,818,087 00
Western	Toronto	99,728,402 00	1,407,492 17	30,932,088 00	289,429 88	1,696,922 05
Totals		$18,988,611,153 00	$74,027,318 63	$502,475,127 00	$5,805,120 93	$79,832,439 56

TABLE No. 29—Continued.

NAME.	Location.	Risks in Force December 31, 1885.				
		Fire.	Premiums	Marine.	Premiums.	Total Premiums.
Atlas	London	$934,469 00	$15,236 35			$15,236 35
British America	Toronto	71,141,421 00	949,500 28	$663,442 00	$29,714 68	979,214 96
Caledonian	Edinburgh	227,768,085 00	557,544 28			557,544 28
City of London Fire	London	160,280,475 00	1,038,198 80			1,038,198 80
Commercial Union	London	731,395,850 00	3,452,577 79	32,477,870 00	631,010 00	4,083,587 79
Fire Insurance Association	London	144,834,977 00	941,934 03			941,934 03
Guardian	London	500,365,600 00	1,928,420 00			1,928,420 00
Hamburg-Bremen	Hamburg	89,457,110 00	648,851 03			648,851 03
Hamburg-Magdeburg	Hamburg	9,915,351 00	69,847 04			69,847 04
Helvetia Swiss Fire	St. Gall, Switzerland	167,565,516 00	305,704 29			305,704 29
Imperial	London	594,062,540 00	2,028,170 00			2,028,170 00
Lancashire	Manchester	862,150,200 00	2,600,991 59			2,600,991 59
Lion Fire	London	165,153,890 00	711,722 00			711,722 00
Liverpool and London and Globe	Liverpool	1,733,030,035 00	7,692,486 69			7,692,486 69
London	London	454,121,230 00	1,763,566 47	17,468,240 00	339,006 00	2,102,572 47
London and Lancashire	Liverpool	572,263,939 00	2,086,614 99			2,086,614 99
London and Provincial Fire	London	70,500,000 00	560,200 00			560,200 00
Manchester Fire	Manchester	320,959,580 00	962,879 00			962,879 00
National	Dublin	186,269,900 00	859,952 00			859,952 00
National Fire and Marine	Dunedin, New Zealand	147,941,710 00	595,415 00	7,143,325 00	150,415 00	745,830 00
New Zealand	Auckland	98,163,080 00	615,384 00	9,659,035 00	121,138 00	736,522 00
North British and Mercantile	London	1,568,361,775 00	3,828,369 00			3,828,369 00
North German Fire	Hamburg	153,115,624 00	420,301 22			420,301 22
Northern	London	626,557,348 00	1,924,562 85			1,924,562 85
Norwich Union	Norwich, England	1,054,215,520 00	2,731,114 00			2,731,114 00
Phœnix	London	1,366,408,160 00	4,554,694 35			4,554,694 35
Prussian National	Stettin	314,906,763 00	373,110 50	46,175 00	6,055 86	379,166 36
Queen	Liverpool	648,594,624 00	3,124,068 63			3,124,068 63
Royal	Liverpool		6,192,237 00			6,192,237 00
Scottish Union and National	Edinburgh	366,722,564 00	1,083,590 80			1,083,590 80
South British Fire and Marine	Auckland	102,490,249 00	751,645 00	9,804,715 00	235,126 00	986,771 00
Svea	Gothenburg, Sweden	149,291,956 00	320,938 66			320,938 66
Transatlantic Fire	Hamburg	105,164,212 00	525,104 43			525,104 43
Union Fire and Marine	Christchurch, N. Z.	21,725,350 00	168,999 62	8,274,350 00	98,777 36	267,776 98

TABLE No. 29—Continued.

NAME.	Location.	RISKS IN FORCE DECEMBER 31, 1885.				
		Fire.	Premiums.	Marine.	Premiums.	Total Premiums.
United Fire Reassurance	Manchester	$165,289,806 00	$837,499 00			$837,499 00
Western	Toronto	102,130,850 00	1,310,727 96	$1,662,306 00	$35,928 12	1,346,656 08
Totals		$14,053,279,819 00	$58,532,158 65	$87,199,458 00	$1,647,171 02	$60,179,329 67

TABLE No. 30.

Summary of Assets, Liabilities, Income, Expenditures, etc., of Marine Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Location.	Cash Capital paid up.	Assets.	Liabilities, Capital not included.	Income.
Alliance Marine	London	$1,250,000 00	$1,899,319 86	$282,391 16	$459,430 00
Baloise	Basle, Switzerland	200,000 00	701,698 43	173,961 60	433,651 99
British and Foreign Marine	Liverpool	1,000,000 00	4,496,103 32	854,578 62	1,825,180 79
Boston Marine	Boston	971,000 00	2,273,532 31	580,286 06	1,122,610 79
Canton	Hong Kong	500,000 00	1,105,571 96	237,555 44	917,741 66
China Traders'	Hong Kong	600,000 00	1,767,519 32	213,414 86	847,054 37
Chinese	Hong Kong	300,000 00	369,963 90	142,175 67	263,066 48
Danube	Vienna	480,000 00	2,413,178 07	1,650,944 95	702,669 01
Fonciere	Paris	1,250,000 00	2,075,280 96	456,926 58	1,266,024 55
Globe Marine	London	500,000 00	601,161 90	114,373 25	311,575 10
Great Western	New York	662,080 00	845,160 06	170,947 29	405,004 85
Helvetia Marine	St. Gall, Switzerland	363,700 00	1,276,355 37	402,238 77	567,952 89
International Marine	Liverpool	400,000 00	815,634 51	261,828 87	392,328 91
London and Provincial Marine	London	500,000 00	1,344,582 10	181,247 10	581,337 85
Magdeburg-General	Magdeburg	750,000 00	2,988,689 83	2,025,499 17	801,499 28
Mannheim	Mannheim	200,000 00	789,916 24	395,482 06	808,295 08
Man On	Hong Kong	500,000 00	603,490 00	40,881 15	179,494 40
Maritime	Liverpool	500,000 00	1,332,403 70	193,576 40	486,459 10
National Marine	London	468,050 00	804,593 00	248,922 00	713,397 00
North China	Shanghai	1,200,000 00	2,130,289 26	455,500 00	1,626,367 06
On Tai	Hong Kong	416,666 67	579,907 91	2,792 98	256,606 88
Reliance Marine	Liverpool	400,000 00	793,090 90	138,295 57	392,463 94
Sea	Liverpool	500,000 00	2,022,194 87	508,023 62	675,014 08
Standard Marine	Liverpool	500,000 00	1,178,401 00	379,314 90	507,867 88
Straits	Singapore	600,000 00	959,452 43	85,724 22	572,206 58
Switzerland Marine	Zurich	200,000 00	602,321 24	237,111 69	407,769 00
Thames and Mersey	Liverpool	1,000,000 00	5,395,196 04	1,258,707 79	1,706,845 47
The Marine	London	900,000 00	4,776,302 00	123,045 00	960,235 00
Transatlantic Marine	Berlin	225,000 00	673,267 78	253,791 45	521,381 93
Union Insurance Society	Hong Kong	250,000 00	1,412,515 84	292,343 61	1,260,194 77
Union Marine	Liverpool	711,200 00	1,976,664 08	545,801 55	1,012,165 12
Universal Marine	London	750,000 00	2,586,085 78	386,816 81	908,803 16
Yangtsze	Shanghai	880,000 00	1,232,132 00	160,260 68	402,321 38
Totals		$19,927,696 67	$54,824,975 97	$13,454,760 87	$24,295,046 33

Table No. 30—Continued.

Name.	Location.	Expenditures.	Losses Incurred during the year.	Net Surplus.
Alliance Marine	London	$581,884 04	$265,360 00	$366,928 70
Baloise	Basle, Switzerland	396,743 05	237,507 66	330,736 83
British and Foreign Marine	Liverpool	1,937,601 03	762,964 27	2,670,524 70
Boston Marine	Boston	921,889 74	1,484,448 53	693,246 25
Canton	Hong Kong	672,223 70	369,263 75	368,016 52
China Traders'	Hong Kong	716,853 87	340,000 00	954,104 46
Chinese	Hong Kong	277,808 52	217,347 72	------
Danube	Vienna	630,456 95	323,473 55	282,233 12
Fonciere	Paris	1,081,037 37	766,286 52	368,354 38
Globe Marine	London	272,661 53	201,141 00	------
Great Western	New York	421,989 68	322,585 67	12,132 77
Helvetia Marine	St. Gall, Switzerland	415,469 74	293,370 71	510,416 60
International Marine	Liverpool	479,575 68	601,116 50	153,805 64
London and Provincial Marine	London	694,145 15	547,984 25	663,335 00
Magdeburg-General	Magdeburg	653,889 27	46,541 49	213,190 66
Mannheim	Mannheim	732,577 61	505,148 25	194,434 18
Man On	Hong Kong	165,352 55	59,267 47	62,608 85
Maritime	Liverpool	544,802 10	424,640 00	638,827 30
National Marine	London	678,755 00	662,030 00	87,621 00
North China	Shanghai	1,858,902 33	1,049,071 20	474,789 26
On Tai	Hong Kong	230,934 37	102,311 45	159,448 26
Reliance Marine	Liverpool	398,541 72	300,673 50	254,795 33
Sea	Liverpool	861,314 14	462,281 00	1,014,171 25
Standard Marine	Liverpool	489,194 72	289,745 00	299,086 10
Straits	Singapore	492,493 57	366,433 64	273,728 21
Switzerland Marine	Zurich	367,055 27	230,009 21	165,209 55
Thames and Mersey	Liverpool	1,770,322 01	1,288,675 00	3,136,488 25
The Marine	London	1,097,915 00	609,225 00	3,753,257 00
Transatlantic Marine	Berlin	287,896 47	221,767 16	194,476 33
Union Insurance Society	Hong Kong	711,800 37	792,607 32	870,172 23
Union Marine	Liverpool	1,072,122 32	1,137,197 12	719,662 53
Universal Marine	London	787,503 04	574,900 02	1,449,268 97
Yangtsze	Shanghai	424,667 62	245,061 58	93,500 00
Totals		$23,126,379 53	$16,100,435 54	$21,428,570 23

TABLE No. 31.

Showing the various items composing the Assets of Marine Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Location.	Real Estate.	Mortgage Loans.	Stocks and Bonds Owned by the Company.	Collateral Loans.	Cash in Office and Banks.
Alliance Marine	London	$100,000 00		$1,648,559 85		$91,253 00
Baloise	Basle, Switzerland		$84,900 00	386,688 19		55,518 74
British and Foreign Marine	Liverpool			3,227,871 55	$795,479 57	72,102 61
Boston Marine	Boston		141,000 00	962,197 25	170,400 00	409,482 42
Canton	Hong Kong			347,242 55	200,000 00	401,512 58
China Traders'	Hong Kong	43,000 00	352,591 73	424,500 00		814,620 52
Chinese	Hong Kong		15,000 00	241,043 00		33,038 89
Danube	Vienna	433,440 00	459,360 00	961,605 63		334,482 20
Fonciere	Paris	194,924 86		543,478 84		641,351 10
Globe Marine	London			391,067 25	8,383 50	136,107 27
Great Western	New York			676,655 00		48,147 75
Helvetia Marine	St. Gall, Switzerland	80,000 00	379,821 52	190,899 05		405,633 44
International Marine	Liverpool			607,810 00	109,500 00	35,120 06
London and Provincial Marine	London			770,015 70		414,270 20
Magdeburg General	Magdeburg		2,126,950 00	633,074 12	7,625 00	23,102 16
Mannheim	Mannheim	23,839 17	165,250 00	53,852 50		141,719 60
Man On	Hong Kong	36,500 00	135,623 10			323,541 70
Maritime	Liverpool			1,198,545 25		36,344 60
National Marine	London			436,205 00		295,967 00
North China	Shanghai	61,000 00		858,961 00		967,428 26
On Tai	Hong Kong		138,800 00			409,297 14
Reliance Marine	Liverpool			546,415 00	173,000 00	21,086 22
Sea	Liverpool			1,246,315 00	480,890 82	71,584 75
Standard Marine	Liverpool			842,835 00	253,475 00	22,930 40
Straits	Singapore		706,700 00	2,747 41		109,577 39
Switzerland Marine	Zurich		39,000 00	314,998 40		88,225 90
Thames and Mersey	Liverpool			4,562,779 05		290,026 62
The Marine	London	350,000 00		4,161,684 37		74,625 63
Transatlantic Marine	Berlin		178,000 00	203,520 40		197,185 23
Union Insurance Society	Hong Kong		205,000 00	651,901 38		387,585 77
Union Marine	Liverpool		15,000 00	1,623,795 50	35,750 00	83,497 66
Universal Marine	London	33,750 00		2,162,742 50		223,420 75
Yangtsze	Shanghai		115,500 00	506,657 00		574,267 63
Totals		$1,356,454 03	$5,258.496 35	$31,386,662 74	$2,234,503 89	$8,234,055 19

TABLE No. 31—Continued.

NAME.	Location.	Interest Due and Accrued.	Premiums in course of Collection.	Bills Receivable, not Matured, taken for Marine Risks.	All other Assets.	Total Assets.
Alliance Marine	London	$3,414 75	$52,430 60	$1,161 66	$2,500 00	$1,899,319 86
Baloise	Basle, Switzerland	3,456 53	174,134 97			704,698 43
British and Foreign Marine	Liverpool	10,016 16	321,266 07	46,287 69	23,079 67	4,496,103 32
Boston Marine	Boston	3,760 68	98,017 50	488,674 46		2,273,532 31
Canton	Hong Kong	14,505 11	92,413 99	49,897 73		1,105,571 96
China Traders'	Hong Kong	20,617 49	86,000 00		26,189 58	1,767,519 32
Chinese	Hong Kong	5,974 02	60,467 74	11,240 50	3,199 75	369,963 90
Danube	Vienna	6,444 00	217,846 24			2,413,178 07
Fonciere	Paris		676,646 53		18,879 63	2,075,280 96
Globe Marine	London		62,505 50	3,098 38		601,161 90
Great Western	New York	9,391 25	55,987 00	35,104 06	19,875 00	845,160 06
Helvetia Marine	St. Gall, Switzerland	9,793 11	174,260 54		35,947 71	1,276,355 37
International Marine	Liverpool	7,734 25	44,071 70		11,398 50	815,634 51
London and Provincial Marine	London		159,425 55		870 65	1,344,582 10
Magdeburg General	Magdeburg	59 52	110,511 97	12,652 97	74,714 09	2,988,689 83
Mannheim	Mannheim	14,619 96	291,706 81	63,066 75	35,861 45	789,916 24
Man On	Hong Kong	3,200 00	104,625 20			603,490 00
Maritime	Liverpool		96,840 90		672 95	1,332,403 70
National Marine	London	12,977 00	54,498 00	695 00	4,251 00	804,593 00
North China	Shanghai		242,900 00			2,130,289 26
On Tai	Hong Kong	5,554 13	26,256 64			579,907 91
Reliance Marine	Liverpool	3,349 95	43,003 68		6,236 05	793,090 90
Sea	Liverpool	8,259 16	61,567 29		153,577 85	2,022,194 87
Standard Marine	Liverpool		54,806 10	3,234 40	1,120 10	1,178,401 00
Straits	Singapore	16,680 03	104,563 95		19,183 65	959,452 43
Switzerland Marine	Zurich		91,193 34	68,749 69	153 91	602,321 24
Thames and Mersey	Liverpool	72,214 75	427,573 75	35,146 07	7,455 80	5,395,196 04
The Marine	London	1,970 00	167,709 00	15,851 00	4,462 00	4,776,302 00
Transatlantic Marine	Berlin		77,932 33	16,629 82		673,267 78
Union Insurance Society	Hong Kong	55,853 05	112,175 64			1,412,515 84
Union Marine	Liverpool	13.288 60	186,016 75	4,364 37	14,951 20	1,976,664 08
Universal Marine	London		140,073 56	14,348 97	11,750 00	2,586,085 78
Yangtsze	Shanghai	9,198 00	23,209 37		3,300 00	1,232,132 00
Totals		$312,331 50	$4,692,638 21	$870,203 52	$479,630 54	$54,824,975 97

TABLE NO. 32.

Showing the various items composing the Liabilities, except Capital Stock, of Marine Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Location.	Losses Adjusted.	Losses Unadjusted.	Losses Resisted.	Cash Dividends.
Alliance Marine	London		$19,885 00		$7,212 50
Baloise	Basle, Switzerland	$90,145 40			143 20
British and Foreign Marine	Liverpool	6,068 70	330,319 64	$3,884 00	807 38
Boston Marine	Boston	6,501 23	243,024 13		
Canton	Hong Kong	8,200 00	74,163 00		1,450 00
China Traders'	Hong Kong		95,000 00		3,790 31
Chinese	Hong Kong		55,500 00		406 00
Danube	Vienna	38,282 40			
Fonciere	Paris	154,724 41			6,172 60
Globe Marine	London	9,622 50			
Great Western	New York	6,935 00	34,738 00	51,200 00	1,548 80
Helvetia Marine	St. Gall, Switzerland	248,380 28			
International Marine	Liverpool	5,550 75	103,330 00		22 50
London and Provincial Marine	London		20,790 00		723 00
Magdeburg General	Magdeburg		16,555 00		1,119 56
Mannheim	Mannheim	149,654 72			1,732 00
Man On	Hong Kong		35,031 15		
Maritime	Liverpool	66,610 00			
National Marine	London		30,887 00		456 00
North China	Shanghai		120,000 00		85,000 00
On Tai	Hong Kong		1,421 52		
Reliance Marine	Liverpool	45,490 00			41 25
Sea	Liverpool	3,290 08	226,360 00	32,250 00	50 00
Standard Marine	Liverpool		187,615 00		60 00
Straits	Singapore	25,000 00			
Switzerland Marine	Zurich		107,252 40		245 00
Thames and Mersey	Liverpool	187,525 00			1,343 50
The Marine	London	11,775 00	9,195 00		
Transatlantic Marine	Berlin	49,553 00			1,533 81
Union Insurance Society	Hong Kong		237,900 00		
Union Marine	Liverpool	189,500 00			
Universal Marine	London	666 81	25,500 00		
Yangtsze	Shanghai	11,679 83	32,752 94		103 95
Totals		$1,315,155 11	$2,007,219 78	$87,334 00	$113,961 96

TABLE No. 32—Continued.

NAME.	Location.	Marine Reinsurance.	All other Claims.	Total Liabilities, Capital not included.	Net Surplus.
Alliance Marine	London	$183,350 00	$71,943 66	$282,391 16	$366,928 70
Baloise	Basle, Switzerland	83,673 00		173,961 60	330,736 83
British and Foreign Marine	Liverpool	415,345 25	98,153 65	854,578 62	2,670,524 70
Boston Marine	Boston	330,760 70		580,286 06	693,246 25
Canton	Hong Kong	119,440 00	34,302 44	237,555 44	368,016 52
China Traders'	Hong Kong	104,021 27	10,603 28	213,414 86	954,104 46
Chinese	Hong Kong	52,363 45	33,906 22	142,175 67	
Danube	Vienna	18,674 86	1,593,987 69	1,650,944 95	282,233 12
Fonciere	Paris	254,189 26	41,840 31	456,926 58	368,354 38
Globe Marine	London	93,158 80	11,591 95	114,373 25	
Great Western	New York	54,679 27	21,846 22	170,947 29	12,132 77
Helvetia Marine	St. Gall, Switzerland	78,130 90	75,727 59	402,238 77	510,416 60
International Marine	Liverpool	79,492 50	73,433 12	261,828 87	153,805 64
London and Provincial Marine	London	152,696 25	7,037 25	181,247 10	663,335 00
Magdeburg General	Magdeburg	8,572 70	1,999,251 91	2,025,499 17	213,190 66
Mannheim	Mannheim	235,920 34	8,175 00	395,482 06	194,434 18
Man On	Hong Kong	5,850 00		40,881 15	62,608 85
Maritime	Liverpool	106,230 00	20,736 40	193,576 40	638,827 30
National Marine	London	217,115 00	464 00	248,922 00	87,621 00
North China	Shanghai	250,000 00	500 00	455,500 00	474,789 26
On Tai	Hong Kong	1,371 46		2,792 98	159,448 26
Reliance Marine	Liverpool	67,339 53	25,424 79	138,295 57	254,795 33
Sea	Liverpool	120,243 55	125,829 99	508,023 62	1,014,171 25
Standard Marine	Liverpool	156,880 00	34,759 90	379,314 90	299,086 10
Straits	Singapore	39,000 00	21,724 22	85,724 22	273,728 21
Switzerland Marine	Zurich	66,206 21	63,408 08	237,111 69	165,209 55
Thames and Mersey	Liverpool	853,525 00	216,314 29	1,258,707 79	3,136,488 25
The Marine	London	102,075 00		123,045 00	3,753,257 00
Transatlantic Marine	Berlin	83,206 07	119,498 57	253,791 45	194,476 33
Union Insurance Society	Hong Kong	54,443 61		292,343 61	870,172 23
Union Marine	Liverpool	257,892 31	98,409 24	545,801 55	719,662 53
Universal Marine	London	360,650 00		386,816 81	1,449,268 97
Yangtsze	Shanghai	20,546 90	95,177 06	160,260 68	93,500 00
Totals		$5,027,043 19	$4,904,046 83	$13,454,760 87	$21,428,570 23

TABLE No. 33.

Showing the various items composing the Incomes of Marine Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Location.	Marine Premiums.	Interest on Bonds and Mortgages.	Interest and Dividends from other sources.	Received from all other sources.	Total Income.
Alliance Marine	London	$397,935 00		$61,495 00		$459,430 00
Baloise	Basle, Switzerland	410,607 59	$19,995 43		$3,048 97	433,651 99
British and Foreign Marine	Liverpool	1,672,437 12		152,618 66	125 01	1,825,180 79
Boston Marine	Boston	1,047,529 20		75,081 59		1,122,610 79
Canton	Hong Kong	863,095 24	28,205 34	25,000 00	1,441 08	917,741 66
China Traders'	Hong Kong	766,300 41		80,618 76	135 20	847,054 37
Chinese	Hong Kong	243,413 61	1,350 00	18,302 87		263,066 48
Danube	Vienna	77,917 57	40,937 93	45,689 27	538,124 24	702,669 01
Fonciere	Paris	1,221,552 80	29,996 76	12,164 25	2,310 74	1,266,024 55
Globe Marine	London	287,486 10		24,053 38	35 62	311,575 10
Great Western	New York	377,289 89		27,714 96		405,004 85
Helvetia Marine	St. Gall, Switzerland	531,425 22		36,527 67		567,952 89
International Marine	Liverpool	367,381 88		24,830 16	116 87	392,328 91
London and Provincial Marine	London	533,670 35		47,667 50		581,337 85
Magdeburg General	Magdeburg	96,297 24	92,566 84	21,814 63	590,820 57	801,499 28
Mannheim	Mannheim	793,675 12	7,834 60	6,785 36		808,295 08
Man On	Hong Kong	162,677 30	14,095 90	2,721 20		179,494 40
Maritime	Liverpool	439,646 00	45,142 40		1,670 70	486,459 10
National Marine	London	680,985 00		32,412 00		713,397 00
North China	Shanghai	1,560,262 06		65,910 00	195 00	1,626,367 06
On Tai	Hong Kong	219,655 42	11,161 73	22,520 18	3,269 55	256,606 88
Reliance Marine	Liverpool	367,325 72		24,983 85	154 37	392,463 94
Sea	Liverpool	601,570 25		73,395 08	78 75	675,044 08
Standard Marine	Liverpool	470,650 70		37,105 93	111 25	507,867 88
Straits	Singapore	520,654 23		51,267 35	285 00	572,206 58
Switzerland Marine	Zurich	388,756 66		18,524 86	487 48	407,769 00
Thames and Mersey	Liverpool	1,523,869 38		173,338 20	9,637 89	1,706,845 47
The Marine	London	787,475 00		172,760 00		960,235 00
Transatlantic Marine	Berlin	504,783 01	15,537 84	340 12	720 96	521,381 93
Union Insurance Society	Hong Kong	1,161,027 82	99,166 95			1,260,194 77
Union Marine	Liverpool	952,501 07		59,605 93	58 12	1,012,165 12
Universal Marine	London	824,461 12		84,342 04		908,803 16
Yangtsze	Shanghai	350,141 43	18,909 87	29,051 14	4,218 92	402,321 36
Totals		$21,204,456 51	$424,901 59	$1,508,641 94	$1,157,046 29	$24,295,046 33

TABLE NO. 34.

Showing the various items composing the Expenditures of Marine Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Location.	Marine Losses.	Dividends.	Brokerage and Commissions.	Office Salaries.	Taxes.	All other Expenditures.	Total Expenditures.
Alliance Marine	London	$452,204 87	$49,325 00	$2,912 89	$49,016 66	$1,194 10	$27,230 52	$581,884 04
Baloise	Basle, Switzerland	237,507 66	80,000 00	53,044 92	26,190 47	------	------	396,743 05
British and Foreign Marine	Liverpool	1,484,448 53	267,025 00	18,930 46	159,540 83	7,656 21	------	1,937,601 03
Boston Marine	Boston	647,850 18	100,000 00	26,793 92	39,659 21	26,145 11	81,441 32	921,889 74
Canton	Hong Kong	399,359 85	48,505 00	36,877 43	45,204 67	------	142,276 75	672,223 70
China Traders'	Hong Kong	332,915 91	109,305 17	21,560 74	100,916 91	------	152,155 14	716,853 87
Chinese	Hong Kong	217,347 72	9,000 00	8,778 79	32,512 55	146 20	10,023 26	277,808 52
Danube	Vienna	56,788 96	48,000 00	110,774 41	134,211 32	13,997 67	266,684 59	630,456 95
Fonciere	Paris	766,286 52	------	172,320 50	------	------	142,430 35	1,081,037 37
Globe Marine	London	201,141 00	25,000 00	------	46,520 53	------	------	272,661 53
Great Western	New York	322,585 67	23,241 40	34,698 63	38,308 52	3,155 46	------	421,989 68
Helvetia Marine	St.Gall, Switzerland	293,370 71	------	69,068 26	41,550 16	11,480 61	------	415,469 74
International Marine	Liverpool	408,547 64	25,000 00	7,729 94	38,256 50	41 60	------	479,575 68
London and Provincial Marine	London	547,984 25	75,000 00	------	54,564 75	1,004 80	15,591 35	694,145 15
Magdeburg General	Magdeburg	49,636 99	62,500 00	8,652 88	13,068 52	236 28	519,794 60	653,889 27
Mannheim	Mannheim	578,025 44	40,000 00	45,378 16	64,301 84	283 00	4,589 17	732,577 61
Man On	Hong Kong	59,267 47	50,000 00	14,540 00	19,177 00	859 93	21,508 15	165,352 55
Maritime	Liverpool	449,590 70	50,000 00	------	34,901 40	------	10,310 00	544,802 10
National Marine	London	452,685 00	53,515 00	98,750 00	51,425 00	------	22,380 00	678,755 00
North China	Shanghai	1,049,071 20	616,000 00	37,670 00	156,081 13	80 00	------	1,858,902 33
On Tai	Hong Kong	102,311 45	35,758 38	7,280 36	26,393 35	1,392 70	57,798 13	230,934 37
Reliance Marine	Liverpool	302,457 43	30,000 00	13,450 93	41,186 08	1,634 37	9,812 91	398,541 72
Sea	Liverpool	759,877 41	50,000 00	6,300 00	40,625 64	4,230 89	280 20	861,314 14
Standard Marine	Liverpool	418,091 27	25,000 00	------	46,103 45	------	------	489,194 72
Straits	Singapore	366,433 64	48,338 11	28,979 93	47,035 52	------	1,706 37	492,493 57
Switzerland Marine	Zurich	230,009 21	30,000 00	41,682 96	51,836 04	6,875 73	6,651 33	367,055 27
Thames and Mersey	Liverpool	1,288,675 56	298,656 50	------	177,590 54	5,399 41	------	1,770,322 01
The Marine	London	609,225 00	375,000 00	------	113,690 00	------	------	1,097,915 00
Transatlantic Marine	Berlin	221,767 16	------	38,361 82	25,698 56	818 93	1,250 00	287,896 47
Union Insurance Society	Hong Kong	554,707 32	------	28,367 46	74,229 51	------	54,496 08	711,800 37
Union Marine	Liverpool	947,697 12	53,340 00	7,934 25	63,150 95	------	------	1,072,122 32
Universal Marine	London	574,900 02	112,500 00	------	100,103 02	------	------	787,503 04
Yangtsze	Shanghai	288,084 99	61,600 00	21,372 11	44,934 60	61 00	8,614 92	424,667 62
Totals		$15,670,853 85	$2,851,609 56	$962,211 75	$1,997,985 23	$86,694 00	$1,557,025 14	$23,126,379 53

TABLE No. 35.

Showing the amount of Risks written, Premiums received, and the amount of Risks in force on the thirty-first day of December, 1885, with Premiums thereon, of Marine Insurance Companies doing business in California.

NAME.	Location.	Marine Risks written during the year.	Premiums.	Marine Risks in force December 31, 1885.	Premiums.
Alliance Marine	London	$72,365,320 00	$536,875 00	$21,175,515 00	$183,350 00
Baloise	Basle, Switzerland	503,741,410 00	570,328 97	48,404,740 00	83,673 00
British and Foreign Marine	Liverpool	303,832,576 00	2,134,592 99	23,933,776 00	369,552 89
Boston Marine	Boston	63,843,237 00	1,102,032 39	10,355,072 00	330,760 70
Canton	Hong Kong	141,286,496 00	1,012,528 42	31,209,007 00	85,182 76
China Traders'	Hong Kong			9,430,000 00	95,000 00
Chinese	Hong Kong	45,415,374 00	379,598 03	3,416,846 00	52,363 45
Danube	Vienna	26,750,870 00	99,862 77	2,613,871 00	18,674 86
Fonciere	Paris	767,891,605 00	1,192,957 05	24,985,426 00	254,189 26
Globe Marine	London	42,347,530 00	365,718 68	7,846,665 00	93,158 80
Great Western	New York	38,379,968 00	439,443 00	1,655,819 00	54,679 27
Helvetia Marine	St. Gall, Switzerland	554,124,073 00	710,480 82	6,555,034 00	78,130 90
International Marine	Liverpool	41,802,905 00	367,381 88	5,350,645 00	105,990 08
London and Provincial Marine	London	95,816,835 00	692,144 25	18,107,285 00	152,696 25
Magdeburg General	Magdeburg	130,507,805 00	122,210 59	1,744,946 00	8,572 70
Mannheim	Mannheim	203,652,422 00	1,182,076 23	21,300,701 00	159,392 16
Man On	Hong Kong	44,549,430 00	176,634 38		
Maritime	Liverpool	67,888,085 00	439,646 00	8,569,415 00	141,641 00
National Marine	London	50,333,045 00	814,960 00	9,831,795 00	217,115 00
North China	Shanghai				
On Tai	Hong Kong			355,816 00	1,511 92
Reliance Marine	Liverpool	51,416,170 00	460,492 35	4,050,985 00	90,390 47
Sea	Liverpool	46,215,270 00	588,366 04	6,383,200 00	165,271 04
Standard Marine	Liverpool	42,516,110 00	470,650 00	7,739,280 00	156,880 00
Straits	Singapore	64,540,855 00	520,654 23	10,890,140 00	87,550 00
Switzerland Marine	Zurich				
Thames and Mersey	Liverpool	175,111,410 00	1,693,480 00	39,914,275 00	853,525 00
The Marine	London				
Transatlantic Marine	Berlin	121,322,414 00	532,610 34	7,328,828 00	83,206 07
Union Insurance Society	Hong Kong				
Union Marine	Liverpool			18,934,055 00	257,892 31
Universal Marine	London	85,135,295 00	1,020,495 00	22,163,380 00	507,365 00
Yangtsze	Shanghai	80,592,419 00	443,403 46	1,559,723 00	20,546 90
Totals		$3,861,378,929 00	$18,069,622 87	$375,806,240 00	$4,708,261 79

TABLE NO. 36—RECAPITULATION.

Summary of Assets, Liabilities, Income, Expenditures, etc., of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Cash Capital paid up.	Assets.	Liabilities, Capital not included.	Income.	Expenditures.	Losses Incurred during the year.	Net Surplus.
California companies	$3,901,325 00	$6,865,587 11	$1,961,512 51	$3,363,705 55	$3,321,309 08	$1,683,490 97	$1,002,749 60
Companies of other States	38,929,271 61	113,411,987 07	45,821,016 11	55,837,011 58	53,076,187 21	30,298,136 61	28,661,699 35
Companies of foreign countries	36,497,403 33	241,767,388 96	151,653,852 77	80,731,827 58	74,763,180 86	43,657,476 80	53,995,287 89
Marine companies	19,927,693 67	54,824,975 97	13,454,760 87	24,295,046 33	23,126,379 53	16,100,435 54	21,428,570 23
Totals	$99,255,693 61	$416,869,939 11	$212,891,142 26	$164,227,591 04	$154,287,056 68	$91,739,539 92	$105,088,307 07

TABLE No. 37—RECAPITULATION.

Showing the various items composing the Assets of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Real Estate.	Mortgage Loans.	Stocks and Bonds Owned.	Collateral Loans.	Cash in Office and Banks.
California companies	$1,067,516 68	$1,355,253 18	$2,626,525 83	$189,150 00	$968,915 56
Companies of other States	9,072,309 19	17,213,843 49	68,873,441 58	2,502,536 97	7,763,487 60
Companies of foreign countries	19,522,738 48	61,705,085 27	102,375,466 53	16,906,980 35	10,875,714 32
Marine companies	1,356,454 03	5,258,496 35	31,386,662 74	2,234,503 89	8,234,055 19
Totals	$31,019,018 38	$85,532,678 29	$205,262,096 68	$21,833,171 21	$27,842,172 67

NAME.	Interest Due and Accrued.	Premiums in course of Collection.	Bills Receivable, not matured, taken for Fire, Marine, and Inland risks.	All other Assets.	Total Assets.
California companies	$38,143 40	$493,766 81	$85,207 70	$41,107 95	$6,865,587 11
Companies of other States	661,545 88	5,310,562 53	1,199,468 13	814,791 70	113,411,987 07
Companies of foreign countries	1,689,680 66	10,182,253 37	769,916 31	17,739,553 67	241,767,388 96
Marine companies	312,331 50	4,692,638 21	870,203 52	479,630 54	54,824,975 97
Totals	$2,701,701 44	$20,679,220 92	$2,924,795 66	$19,075,083 86	$416,869,939 11

TABLE NO. 38—RECAPITULATION.

Showing the various items composing the Liabilities of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Losses Adjusted.	Losses Unadjusted.	Losses Resisted.	Cash Dividends remaining unpaid.	Fire Reinsurance.
California companies	$54,725 89	$89,111 81	$42,431 71	$4,901 00	$1,565,935 78
Companies of other States	1,587,163 42	2,693,082 04	828,212 69	37,172 14	39,280,250 76
Companies of foreign countries	6,107,288 93	2,554,579 33	72,933 18	433,178 42	31,839,682 60
Marine companies	1,315,155 11	2,007,219 78	87,334 00	113,961 96	----------
Totals	$9,064,333 35	$7,343,992 96	$1,030,911 58	$589,213 52	$72,685,869 14

NAME.	Marine Reinsurance.	Liability under Life or other Special Department.	All other Claims.	Total Liabilities.	Net Surplus.
California companies	$152,332 30	----------	$52,074 02	$1,961,512 51	$1,002,749 60
Companies of other States	672,024 68	----------	723,110 38	45,821,016 11	28,661,699 35
Companies of foreign countries	1,357,455 93	$104,707,982 98	4,580,751 40	151,653,852 77	53,995,287 89
Marine companies	5,027,043 19	----------	4,904,046 83	13,454,760 87	21,428,570 23
Totals	$7,208,856 10	$104,707,982 98	$10,259,982 63	$212,891,142 26	$105,088,307 07

TABLE No. 39—RECAPITULATION.

Showing the various items composing the Incomes of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Fire Premiums.	Marine Premiums.	Interest on Mortgage Loans.	Interest and Dividends from other sources.	Rents.	From all other sources.	Total Income.
California companies	$2,637,392 69	$458,231 10	$108,491 17	$96,361 41	$62,879 37	$349 81	$3,363,705 55
Companies of other States	46,745,535 45	4,239,564 34	945,919 93	3,566,907 64	242,265 72	96,818 50	55,837,011 58
Companies of foreign countries	65,402,522 38	4,254,707 68		5,984,639 07		5,089,958 45	80,731,827 58
Marine companies		21,204,456 51	424,901 59	1,508,641 94		1,157,046 29	24,295,046 33
Totals	$114,785,450 52	$30,156,959 63	$1,479,312 69	$11,156,550 06	$305,145 09	$6,344,173 05	$164,227,591 04

TABLE No. 40—RECAPITULATION.

Showing the various items composing the Expenditures of Fire and Marine Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Fire Losses.	Marine Losses.	Dividends.	Brokerage and Commissions.	Office Salaries.	Taxes.	All other Expenditures.	Total Expenditures.
California companies	$1,461,334 68	$295,821 63	$321,811 50	$546,563 42	$301,730 20	$61,379 40	$332,668 25	$3,321,309 08
Companies of other States	26,560,395 97	3,578,930 86	4,623,556 80	9,143,348 09	3,823,307 04	1,301,201 73	4,045,446 72	53,076,187 21
Companies of foreign countries	40,017,042 98	3,243,134 58	6,111,584 32	9,853,054 52	6,071,496 13	505,273 16	8,961,595 17	74,763,180 86
Marine companies		15,670,853 85	2,851,609 56	962,211 75	1,997,985 23	86,694 00	1,557,025 14	23,126,379 53
Totals	$68,038,773 63	$22,788,740 92	$13,908,562 18	$20,505,177 78	$12,194,518 60	$1,954,548 29	$14,896,735 28	$154,287,056 68

TABLE NO. 41—RECAPITULATION.

Showing amount of Risks written, Premiums received, and amount of Risks in force on the thirty-first day of December, 1885, with Premiums thereon, of Fire and Marine Insurance Companies doing business in California.

NAME.	RISKS WRITTEN DURING THE YEAR.				
	Fire.	Premiums.	Marine.	Premiums.	Total Premiums.
California companies	$231,199,198 00	$3,398,280 50	$37,811,087 00	$671,229 77	$4,069,710 27
Companies of other States	4,965,235,460 00	55,014,909 30	812,266,522 00	5,226,294 47	60,241,203 77
Companies of foreign countries	18,988,611,153 00	74,027,318 63	502,475,127 00	5,805,120 93	79,832,439 56
Marine companies			3,861,378,929 00	18,069,622 87	18,069,622 87
Totals	$24,185,045,811 00	$132,440,508 43	$5,213,931,665 00	$29,772,268 04	$162,212,976 47

NAME.	RISKS IN FORCE DECEMBER 31, 1885.				
	Fire.	Premiums.	Marine.	Premiums.	Total Premiums.
California companies	$197,244,599 00	$2,875,584 10	$4,659,000 00	$267,030 82	$3,142,614 92
Companies of other States	6,139,848,331 00	71,175,811 57	53,103,191 00	854,088 43	72,029,900 00
Companies of foreign countries	14,053,279,819 00	58,532,158 65	87,199,458 00	1,647,171 02	60,179,329 67
Marine companies			375,806,240 00	4,708,261 79	4,708,261 79
Totals	$20,390,372,749 00	$132,583,554 32	$520,767,889 00	$7,476,552 06	$140,060,106 38

TABLE No. 42.

Showing the various items composing the Assets of Life Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Location.	Loans on Mortgages.	Collateral Loans.	Stock and Bonds.	Cash in Office and Banks.	Real Estate.
Pacific Mutual Life	San Francisco	$831,312 25	$5,544 24	$6,958 39	$121,408 95	$157,528 04
Ætna Life	Hartford	15,226,762 97	446,807 31	8,546,016 15	3,284,024 86	369,312 80
Brooklyn Life	New York	500,974 00	16,000 00	465,450 00	44,661 82	332,300 00
Connecticut Mutual Life	Hartford	27,088,121 62	149,933 00	9,833,802 09	2,844,847 55	10,966,500 88
Equitable Life	New York	16,588,332 91	1,420,475 00	28,104,110 00	4,878,078 81	12,616,067 92
Germania Life	New York	5,739,363 19	----------------	3,928,392 25	286,925 29	1,077,868 27
Hartford Life and Annuity	Hartford	277.945 16	2,000 00	209,483 25	60,903 94	210,042 91
Manhattan Life	New York	3,146,494 22	3,699,062 50	1,854,937 63	156,414 13	890,978 57
Mutual Benefit Life	Newark	17,337,408 34	2,635,000 00	11,191,849 57	1,003,857 75	1,945,037 59
Mutual Life	New York	49,228,930 16	3,856,500 00	39,366,104 00	2,619,643 21	10,992,720 45
New England Mutual Life	Boston	2,546,448 00	1,681,211 25	10,045,539 50	800,057 02	1,329,892 85
New York Life	New York	18,159,500 00	451,500 00	36,991,923 88	2,042.542 60	6,855,532 63
Northwestern Mutual Life	Milwaukee	19,242,625 41	----------------	650,787 86	1,081,240 39	1,322,756 28
Penn Mutual Life	Philadelphia	2,598,731 10	283,129 70	5,539,579 00	73,081 08	830,659 21
Travelers'	Hartford	3,386,142 23	310,490 75	2,959,359 13	738,690 07	737,812 37
Union Mutual Life	Portland, Maine	1,035,390 53	92,867 00	2,040,108 23	95,625 45	2,004,627 16
United States Life	New York	2,355,208 23	104,487 45	2,460,451 06	105,760 63	80,500 00
Washington Life	New York	5,063,508 67	----------------	811,750 00	932,404 79	571,621 13
Totals		$190,353,198 99	$15,155,008 20	$165,006,601 99	$21,170,168 34	$53,291,759 06

TABLE No. 42—Continued.

NAME.	Location.	Premium Notes.	Interest Due and Accrued.	Net Uncollected Premiums.	All other admitted Assets.	Total Assets.
Pacific Mutual Life	San Francisco	$64,100 84	$60,161 55	$51,365 80	$24,371 71	$1,325,754 77
Ætna Life	Hartford	1,782,399 75	418,003 68	165,018 28	231,162 12	30,499,507 92
Brooklyn Life	New York	118,363 96	10,746 98	26,011 03	36,857 80	1,551,395 59
Connecticut Mutual Life	Hartford	2,430,563 01	974,298 27	66,553 10	19,455 64	51,374,075 16
Equitable Life	New York		533,094 71	1,325,918 00	81,516 91	65,547,594 26
Germania Life	New York		60,767 98	238,467 21	153,601 69	11,485,385 91
Hartford Life and Annuity	Hartford	81,710 00	6,168 18	4,353 14		855,606 58
Manhattan Life	New York	1,137,136 15	114,328 90	150,814 78	5,660 16	11,155,827 04
Mutual Benefit Life	Newark	4,207,348 22	522,020 23	278,155 83	505,317 86	39,625,995 39
Mutual Life	New York		1,217,329 85	1,150,551 64		108,431,779 31
New England Mutual Life	Boston	840,066 61	193,977 91	138,651 79	270,701 69	17,846,546 65
New York Life	New York	416,034 15	423,718 26	1,163,088 92	11,565 92	66,515,406 36
Northwestern Mutual Life	Milwaukee	1,156,215 05	361,122 17	422,982 63	316 66	21,238,046 45
Penn Mutual Life	Philadelphia	589,077 54	44,309 14	184,027 62	192,874 33	10,335,468 72
Travelers'	Hartford		91,324 80	154,902 86	35,316 00	8,417,038 21
Union Mutual Life	Portland, Maine	668,166 00	61,961 98	98,345 21	12,527 26	6,109,618 82
United States Life	New York	145,913 31	68,380 92	117,263 74		5,137,965 34
Washington Life	New York	134,674 91	56,846 28	200,969 05		7,771,774 86
Totals		$13,774,769 53	$5,251,564 82	$5,940,470 66	$1,581,245 75	$171,524,787 34

TABLE NO. 43.

Showing the various items composing the Liabilities, Capital Stock not included, of Life Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Location.	Losses Adjusted and in process of Adjustment.	Losses Resisted.	Net Value of outstanding Policies (American Table), Interest 4½ per ct.	Unpaid Dividends due Policy Holders.	All other Liabilities.	Total Liabilities.	Surplus as regards Policy Holders.
Pacific Mutual Life	San Francisco	$17,500 00		$1,156,333 00			$1,173,833 00	$151,921 77
Ætna Life	Hartford	267,002 00	$23,000 00	23,361,612 00	$50,534 38	$55,991 77	23,758,140 15	6,741,367 77
Brooklyn Life	New York	20,116 00		1,276,166 00		4,205 83	1,300,487 83	250,907 76
Connecticut Mutual Life	Hartford	199,329 25	12,000 00	45,872,336 00	126,800 99	416,045 80	46,626,512 04	7,747,563 12
Equitable Life	New York	334,910 10	15,000 00	48,588,337 00	92,504 00	43,664 00	49,074,415 10	16,473,179 16
Germania Life	New York	154,160 65	28,887 68	9,731,470 40	43,147 93	34,728 00	9,992,394 66	1,492,991 25
Hartford Life and Annuity	Hartford	526 00		516,829 00			517,355 00	338,251 58
Manhattan Life	New York	184,244 86		8,585,214 00	75,693 40	57,000 00	8,902,152 26	2,253,674 78
Mutual Benefit Life	Newark	208,728 43	20,000 00	33,740,775 00	193,746 37	12,182 28	34,175,432 08	5,450,563 31
Mutual Life	New York	875,226 00	92,752 00	94,068,502 00		91,730 73	95,128,210 73	13,303,568 58
New England Mutual Life	Boston	184,447 00		14,931,639 00	82,430 94	5,355 00	15,203,871 94	2,642,674 71
New York Life	New York	404,701 18	30,000 00	52,825,129 00		40,529 24	53,300,359 42	13,215,046 94
Northwestern Mutual Life	Milwaukee	161,070 92	59,000 00	18,418,651 00	7,000 00	102,206 71	18,747,928 63	5,490,117 82
Penn Mutual Life	Philadelphia	66,710 07	3,000 00	8,111,901 00	32,379 34	160,898 42	8,374,888 83	1,960,579 89
Travelers'	Hartford	137,031 00	57,200 00	5,659,333 10		10,000 00	5,863,564 10	2,553,474 11
Union Mutual Life	Portland, Me.	38,282 62	34,564 18	5,330,308 00	6,407 44	3,854 50	5,413,416 74	696,202 08
United States Life	New York	16,242 86	10,000 00	4,495,350 00		9,428 01	4,531,020 87	906,944 47
Washington Life	New York	41,474 54	14,411 99	6,762,846 00		5,820 05	6,824,552 58	947,222 28
Totals		$3,311,703 48	$399,815 85	$383,432,731 50	$710,644 79	$1,053,640 34	$388,908,535 96	$82,616,251 38

TABLE NO. 44.

Showing the various items composing the incomes of Life Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Location.	Premiums.	Interest.	Rents.	All other Sources.	Total Income.
Pacific Mutual Life	San Francisco	$358,866 61	$67,214 73		$58 00	$426,139 34
Ætna Life	Hartford	2,845,491 41	1,691,125 43		43,258 03	4,579,874 87
Brooklyn Life	New York	179,274 62	63,586 22	$19,579 40	2,477 89	264,918 13
Connecticut Mutual Life	Hartford	4,542,264 74	2,428,711 54	520,525 89	159,711 00	7,651,213 17
Equitable Life	New York	13,461,679 22	2,597,425 28	530,948 63		16,590,053 13
Germania Life	New York	1,614,892 13	505,962 03	55,178 14	635 33	2,176,667 63
Hartford Life and Annuity	Hartford	22,339 49	35,928 72	3,079 74	167 95	61,515 90
Manhattan Life	New York	1,038,633 12	449,311 94	56,783 62	45,254 93	1,589,983 61
Mutual Benefit Life	Newark	4,461,122 02	1,821,860 07	35,167 50	5,688 09	6,323,837 68
Mutual Life	New York	14,768,901 93	5,089,559 32	356,493 03		20,214,954 28
New England Mutual Life	Boston	2,111,430 42	828,001 76	68,642 83	34,707 55	3,042,782 56
New York Life	New York	12,480,848 00	2,989,045 16	100,373 60	334,874 53	15,905,141 29
Northwestern Mutual Life	Milwaukee	3,785,045 20	1,288,209 69	30,974 63		5,104,229 52
Penn Mutual Life	Philadelphia	1,826,700 67	475,811 42	43,821 11	23,880 00	2,370,213 20
Travelers'	Hartford	2,820,637 97	437,310 92	28,997 98	14,666 69	3,301,613 56
Union Mutual Life	Portland, Maine	668,997 57	304,553 27	57,103 81		1,030,654 65
United States Life	New York	660,389 03	254,471 30	2,458 14		917,318 47
Washington Life	New York	1,392,483 18	387,043 01	16,931 37	50,000 00	1,846,457 56
Totals		$69,039,997 33	$21,715,131 81	$1,927,059 42	$715,379 99	$93,397,568 55

TABLE NO. 45.

Showing the various items composing the Expenditures of Life Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Location.	Losses and Matured Endowments.	Surrendered Policies.	Premium Notes Voided by Lapse of Policies.	Dividends to Policy Holders.	Dividends to Stockholders.
Pacific Mutual Life	San Francisco	$175,884 87	$65,430 00		$29,793 83	$10,945 00
Ætna Life	Hartford	2,272,374 55	240,541 71	$59,266 59	547,289 07	100,000 00
Brooklyn Life	New York	164,861 23	26,959 31	526 98	14,670 66	10,000 00
Connecticut Mutual Life	Hartford	3,959,816 70	606,120 53	56,490 39	1,202,156 56	
Equitable Life	New York	4,440,233 83	866,705 65		1,740,169 81	7,000 00
Germania Life	New York	939,898 22	145,714 62		204,871 50	24,000 00
Hartford Life and Annuity	Hartford	45,532 00	10,547 03		17,612 24	20,000 00
Manhattan Life	New York	787,358 14	138,514 61	17,036 46	231,350 06	40,000 00
Mutual Benefit Life	Newark	2,641,048 33	678,218 31		1,120,379 47	
Mutual Life	New York	7,990,436 31	3,199,713 59		3,183,023 45	
New England Mutual Life	Boston	1,379,823 00	181,458 21	49,670 45	481,332 74	
New York Life	New York	3,740,874 11	1,350,460 21		1,691,268 59	
Northwestern Mutual Life	Milwaukee	1,536,835 39	300,469 55	21,895 68	778,593 39	
Penn Mutual Life	Philadelphia	746,344 88	175,258 79	33,699 74	386,703 39	
Travelers'	Hartford	1,221,218 69	43,214 44			84,000 00
Union Mutual Life	Portland, Maine	703,559 70	44,144 38	11,713 00	60,259 61	
United States Life	New York	387,765 11	111,979 83			30,800 00
Washington Life	New York	583,177 28	259,886 85		146,075 00	8,695 75
Totals		$33,717,042 34	$8,445,337 62	$250,299 29	$11,835,549 37	$335,440 75

TABLE No. 45—Continued.

NAME.	Location.	Commissions.	Salaries.	Medical Examiners.	All other Payments.	Total Expenditures.
Pacific Mutual Life	San Francisco	$27,708 29	$37,524 77	$2,698 50	$18,228 77	$368,214 03
Ætna Life	Hartford	300,119 77	100,974 54	17,739 10	147,559 86	3,785,865 19
Brooklyn Life	New York	12,172 97	19,551 67	4,216 96	40,753 24	293,713 02
Connecticut Mutual Life	Hartford	269,671 90	103,416 40	17,223 70	711,615 38	6,926,511 56
Equitable Life	New York	1,133,281 77	303,848 33	126,221 49	1,422,799 06	10,040,259 94
Germania Life	New York	193,891 45	65,819 50	14,634 77	105,572 51	1,694,402 57
Hartford Life and Annuity	Hartford	-----	27,039 89	-----	43,531 74	164,262 90
Manhattan Life	New York	114,468 61	59,508 77	10,026 50	91,829 49	1,490,092 64
Mutual Benefit Life	Newark	428,571 55	117,645 61	32,290 41	230,730 37	5,248,884 05
Mutual Life	New York	1,228,679 84	326,088 64	104,256 55	1,327,024 87	17,359,223 25
New England Mutual Life	Boston	157,491 66	82,857 07	11,160 58	194,321 52	2,538,115 23
New York Life	New York	1,430,265 69	274,885 87	104,513 99	1,729,251 66	10,321,520 12
Northwestern Mutual Life	Milwaukee	460,196 01	121,795 28	34,748 00	234,443 68	3,488,976 98
Penn Mutual Life	Philadelphia	131,394 98	53,047 73	21,628 47	212,429 46	1,760,507 44
Travelers'	Hartford	609,301 27	123,462 12	22,397 70	373,307 97	2,476,902 19
Union Mutual Life	Portland, Maine	52,127 36	44,022 38	12,306 50	175,755 25	1,103,888 18
United States Life	New York	86,928 37	47,472 59	9,832 10	146,674 46	821,452 46
Washington Life	New York	87,599 55	52,556 53	12,672 25	185,096 51	1,335,759 72
Totals		$6,723,871 04	$1,961,517 69	$558,567 57	$7,390,925 80	$71,218,551 47

TABLE NO. 46.

Showing the number and amount of Policies, including additions, in force at the end of the previous year, and an exhibit of the Policies issued, and of those which have ceased to be in force during the year, and those in force at the end of the year, of Life Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Location.	POLICIES IN FORCE DECEMBER 31, 1884.		POLICIES ISSUED AND REVIVED DURING THE YEAR.		TOTAL.	
		Number.	Amount Insured.	Number.	Amount Insured.	Number.	Amount Insured.
Pacific Mutual Life	San Francisco	3,003	$7,883,155 00	2,909	$7,650,999 00	5,912	$15,534,154 00
Ætna Life	Hartford	60,286	84,663,591 00	5,726	11,111,960 00	66,012	95,775,551 00
Brooklyn Life	New York	4,372	5,716,287 00	860	562,123 00	5,232	6,278,410 00
Connecticut Mutual Life	Hartford	62,934	152,230,685 00	3,752	9,007,390 00	66,686	161,238,075 00
Equitable Life	New York	83,699	309,409,171 00	23,968	96,011,378 00	107,667	405,420,549 00
Germania Life	New York	22,500	38,954,341 00	2,870	4,886,016 00	25,370	43,840,357 00
Hartford Life and Annuity	Hartford						
Manhattan Life	New York	12,053	33,997,130 00	1,820	4,490,590 00	13,873	38,487,720 00
Mutual Benefit Life	Newark	50,361	135,843,543 00	5,651	14,826,354 00	56,012	150,669,897 00
Mutual Life	New York	114,804	351,789,285 00	14,321	46,502,894 00	129,125	398,292,179 00
New England Mutual Life	Boston	21,279	62,628,796 00	2,523	7,681,937 00	23,802	70,310,733 00
New York Life	New York	78,047	229,382,586 00	18,566	68,521,452 00	96,613	297,904,038 00
Northwestern Mutual Life	Milwaukee	45,948	98,793,982 00	9,034	26,259,387 00	54,982	125,053,369 00
Penn Mutual Life	Philadelphia	17,743	43,979,860 00	3,883	8,430,635 00	21,626	52,410,495 00
Travelers'	Hartford	15,340	27,328,814 00	2,809	5,893,682 00	18,149	33,222,496 00
Union Mutual Life	Portland, Maine	13,832	24,282,745 00	2,307	235,848 00	16,139	28,518,593 00
United States Life	New York	10,132	19,769,864 00	1,582	4,059,260 00	11,714	23,829,124 00
Washington Life	New York	15,043	33,334,672 00	2,408	5,318,665 00	17,451	38,653,337 00
Totals		631,376	$1,659,988,507 00	104,989	$321,450,570 00	736,365	$1,985,439,077 00

TABLE No. 46—Continued.

NAME.	Location.	POLICIES TERMINATED.		NET POLICIES IN FORCE DECEMBER 31, 1885.	
		Number.	Amount Insured.	Number.	Amount Insured.
Pacific Mutual Life	San Francisco	1,350	$3,906,667 00	4,562	$11,627,487 00
Ætna Life	Hartford	4,575	7,984,308 00	61,437	87,791,243 00
Brooklyn Life	New York	947	816,545 00	4,285	5,461,865 00
Connecticut Mutual Life	Hartford	3,691	9,936,487 00	62,995	151,301,588 00
Equitable Life	New York	11,795	48,082,303 00	95,872	357,338,246 00
Germania Life	New York	1,949	3,860,372 00	23,421	39,979,985 00
Hartford Life and Annuity	Hartford	----------	----------	----------	----------
Manhattan Life	New York	1.392	4,020,581 00	12,481	34,467,139 00
Mutual Benefit Life	Newark	4,166	11,253,090 00	51,846	139,416,807 00
Mutual Life	New York	8,243	29,339,842 00	120,882	368,952,337 00
New England Mutual Life	Boston	1,737	5,676,333 00	22,065	64,634,400 00
New York Life	New York	10,195	38,229,538 00	86,418	259,674,500 00
Northwestern Mutual Life	Milwaukee	4,882	14,342,508.00	50,100	110,710,861 00
Penn Mutual Life	Philadelphia	1,792	4,421,272 00	19,834	47,989,223 00
Travelers'	Hartford	1,579	3,416,365 00	16,570	29,806,131 00
Union Mutual Life	Portland, Maine	2,178	3,951,156 00	13,961	24,567,437 00
United States Life	New York	1,529	3,675,271 00	10,185	20,153,853 00
Washington Life	New York	2,066	4,697,013 00	15,385	33,956,324 00
Totals		64,066	$197,609,651 00	672,299	$1,787,829,426 00

TABLE NO. 47.

Showing the number and amount of Policies which have ceased to be in force during the year, with their mode of termination, of Life Insurance Companies doing business in California on the thirty-first day of December, 1885.

NAME.	Location.	BY DEATH.		BY EXPIRATION.		BY SURRENDER.	
		Number.	Amount Insured.	Number.	Amount Insured.	Number.	Amount Insured.
Pacific Mutual Life	San Francisco	52	$148,198 00	655	$2,113,969 00	161	$480,500 00
Ætna Life	Hartford	841	1,269,466 00	1,107	1,294,820 00	889	1,464,910 00
Brooklyn Life	New York	47	86,875 00	36	84,277 00	130	225,162 00
Connecticut Mutual Life	Hartford	1,119	3,079,747 00	443	808,235 00	974	3,938,054 00
Equitable Life	New York	1,067	4,272,271 00	195	568,560 00	1,310	5,628,576 00
Germania Life	New York	372	717,773 00	168	257,738 00	462	1,081,839 00
Hartford Life and Annuity	Hartford						
Manhattan Life	New York	243	711,178 00	45	79,649 00	129	352,044 00
Mutual Benefit Life	Newark	810	2,391,334 00	548	1,420,200 00	1,674	4,719,036 00
Mutual Life	New York	1,611	5,071,576 00	793	1,784,806 00	1,704	5,682,720 00
New England Mutual Life	Boston	331	1,173,793 00	371	920,935 00	328	892,225 00
New York Life	New York	881	2,881,933 00	621	730,114 00	1,233	6,916,683 00
Northwestern Mutual Life	Milwaukee	460	1,007,761 00	347	3,273,052 00	713	1,466,548 00
Penn Mutual Life	Philadelphia	230	644,059 00	44	64,395 00	364	892,952 00
Travelers'	Hartford	155	256,126 00	75	87,874 00	93	137,639 00
Union Mutual Life	Portland, Maine	185	407,005 00	460	717,724 00	109	200,035 00
United States Life	New York	177	309,053 00	73	129,312 00	199	498,472 00
Washington Life	New York	177	397,762 00	66	119,885 00	473	1,295,714 00
Totals		8,758	$24,825,910 00	6,047	$14,455,545 00	10,945	$34,873,109 00

TABLE No. 47—Continued.

NAME.	Location.	By Lapse.		By Change and Decrease and Not Taken.	
		Number.	Amount Insured.	Number.	Amount Insured.
Pacific Mutual Life	San Francisco	219	$650,000 00	263	$514,000 00
Ætna Life	Hartford	894	2,241,666 00	844	1,674,319 00
Brooklyn Life	New York	674	344,334 00	60	74,500 00
Connecticut Mutual Life	Hartford	861	2,259,904 00	294	850,550 00
Equitable Life	New York	6,223	21,976,033 00	3,000	15,636,863 00
Germania Life	New York	640	1,141,035 00	307	661,987 00
Hartford Life and Annuity	Hartford	------	------------	------	------------
Manhattan Life	New York	470	1,259,586 00	505	1,618,124 00
Mutual Benefit Life	Newark	647	1,580,170 00	487	1,142,350 00
Mutual Life	New York	2,700	6,938,290 00	1,435	4,779,650 00
New England Mutual Life	Boston	478	1,764,234 00	229	925,146 00
New York Life	New York	4,700	14,626,879 00	2,760	13,073,929 00
Northwestern Mutual Life	Milwaukee	2,520	5,829,498 00	842	2,765,649 00
Penn Mutual Life	Philadelphia	827	1,797,611 00	327	1,022,255 00
Travelers'	Hartford	880	1,876,700 00	376	1,059,026 00
Union Mutual Life	Portland, Maine	856	1,468,344 00	568	1,158,045 00
United States Life	New York	844	2,005,818 00	236	732,616 00
Washington Life	New York	985	1,951,548 00	365	932,104 00
Totals		25,418	$69,711,647 00	12,898	$48,621,113 00

TABLE NO. 48.

Statement of Office Collections, showing amounts collected from the different Companies for the year ending December 31, 1885, for filing and certifying copies of papers, taxes, and substitution of securities.

NAME.	Amount.
Anglo-Nevada	$40 00
California	20 00
Commercial	20 00
Fireman's Fund	20 00
Home Mutual	20 00
Oakland Home	20 00
Southern California	35 00
State Investment	20 00
Sun	20 00
Union	21 00
Western Fire and Marine	20 00
Ætna	20 00
Agricultural	417 00
Allemannia	351 61
Alliance Marine	20 00
Amazon	20 00
American	312 42
American Central	50 00
American Fire	1,110 24
Atlas	65 00
Baloise	20 00
Boatman's Fire and Marine	343 10
Boston Marine	20 00
Boyleston Mutual	65 00
British America	20 00
British and Foreign Marine	20 00
Caledonian	65 00
Canton	20 00
China Traders'	20 00
Chinese	20 00
Citizens', of Missouri	50 00
Citizens', of New York	363 97
City of London Fire	20 00
Clinton Fire	65 00
Commercial Union	20 00
Concordia Fire	65 00
Connecticut Fire	20 00
Continental	515 05
Danube	20 00
Eliot	239 65
Farragut Fire	72 90
Fire Association	865 90
Fire Insurance Association	20 00
Firemen's, of Baltimore	20 00
Firemen's, of New Jersey	65 00
Fonciere	20 00
Franklin Fire	65 00
German	20 00
German-American	682 05
German Fire	593 73
Germania Fire	447 90
Germania	20 00
Glasgow and London	65 00
Glens Falls	341 05
Girard Fire and Marine	449 10
Globe Marine	20 00
Great Western	30 00
Guardian Fire and Life	21 00
Hamburg-Bremen	20 00
Hamburg-Magdeburg	20 00
Hanover	699 52
Hartford	20 00
Amount carried forward	$9,192 19
Amount brought forward	$9,192 19
Helvetia Marine	20 00
Helvetia Swiss Fire	20 00
Home	1,014 27
Howard	210 55
Imperial	20 00
Insurance Co. of North America	1,482 45
Ins. Co. of the State of Penn.	283 27
International Marine	20 00
Irving	179 25
Lancashire	20 00
Lion Fire	20 00
Liverpool and London and Globe	20 00
London	20 00
London and Lancashire	20 00
London and Provincial Fire	20 00
London and Provincial Marine	20 00
Magdeburg General	20 00
Manchester Fire	20 00
Mannheim	20 00
Man On	20 00
Manufacturers' Fire and Marine	1,407 02
Maritime	20 00
Mechanics' Fire	147 50
Merchants', of New Jersey	370 74
Merchants', of New York	65 00
National	20 00
National Fire, of New York	131 30
National Fire, of Connecticut	20 00
National Fire and Marine	20 00
National Marine	20 00
New Hampshire Fire	20 00
New Orleans Insurance Ass'n	20 00
New York Bowery Fire	164 03
New Zealand	20 00
Niagara	392 91
North American	166 55
North British and Mercantile	20 00
North China	20 00
Northern	20 00
North German Fire	20 00
Northwestern National	20 00
Norwich Union	20 00
On Tai	20 00
Oregon Fire and Marine	20 00
Orient	20 00
Pacific Fire	353 55
Pennsylvania	345 48
Pennsylvania Fire	951 70
People's	171 52
Phenix	1,257 38
Phœnix, of Connecticut	20 00
Phœnix, of London	20 00
Prescott	166 55
Providence-Washington	456 06
Prussian National	20 00
Queen	20 00
Reliance Marine	20 00
Royal	20 00
Scottish Union and National	21 00
Sea	20 00
Security	20 00
Amount carried forward	$19,730 27

TABLE No. 48—Continued.

NAME.	Amount.
Amount brought forward	$19,730 27
Saint Paul	265 46
South British Fire and Marine	20 00
Springfield Fire and Marine	821 43
Standard Marine	30 00
Star Fire	41 05
Straits	20 00
Svea Fire and Life	20 00
Sun Mutual	65 00
Switzerland Marine	20 00
Teutonia	20 00
Thames and Mersey	20 00
The Marine	20 00
Traders	20 00
Transatlantic Fire	20 00
Transatlantic Marine	20 00
Union, of Pennsylvania	505 52
Union, of Hong Kong	20 00
Union Fire and Marine	20 00
Union Marine	20 00
United Fire Reinsurance	20 00
United States Fire	60 67
Universal Marine	20 00
Washington Fire and Marine	414 73
Westchester Fire	40 00
Western	20 00
Williamsburg City Fire	204 33
Yangtsze	20 00
Pacific Mutual Life	60 00
Ætna Life	20 00
Brooklyn Life	20 00
Amount carried forward	$22,618 46
Amount brought forward	$22,618 46
Connecticut Mutual Life	20 00
Equitable Life	20 00
Germania Life	20 00
Hartford Life and Annuity	20 00
Manhattan Life	20 00
Mutual Benefit Life	20 00
Mutual Life	20 00
New England Mutual Life	20 00
New York Life	20 00
Northwestern Mutual Life	30 00
Penn Mutual Life	20 00
Travelers'	30 00
Union Central Life	65 00
Union Mutual Life	64 94
United States Life	30 00
Washington Life	20 00
National Life	20 00
Charter Oak Life	20 00
Phœnix Mutual Life	20 00
Pacific Surety	35 00
Accident Insurance Company of North America	20 00
American Steam Boiler	20 00
American Surety	20 00
Fidelity and Casualty	20 00
Hartford Steam Boiler	20 00
Lloyd's Plate Glass	65 00
Metropolitan Plate Glass	20 00
Universal Accident Indemnity	35 00
Total	$23,373 40

I certify the foregoing to be a full, true, and correct statement of the receipts of the Insurance Department of the State of California for the year eighteen hundred and eighty-five, to the best of my knowledge and belief, as taken from the books of the department.

J. C. L. WADSWORTH,
Insurance Commissioner.

Subscribed and sworn to before me, this nineteenth July, 1886.

[SEAL.] GEO. T. KNOX, Notary Public.

SECOND BIENNIAL REPORT

OF THE

BUREAU OF LABOR STATISTICS

OF THE

STATE OF CALIFORNIA.

JOHN SUMMERFIELD ENOS,
COMMISSIONER.

FOR THE YEARS 1885 AND 1886.

SACRAMENTO:
STATE OFFICE, : : : : J. D. YOUNG, SUPT. STATE PRINTING.
1887.

TABLE OF CONTENTS.

	Page.
Chapter I—Work of the Bureau	7
II—Agricultural	34
III—Railroad Transportation	67
IV—Chinese Labor, and Chinese Mode of Living	80
V—Convict Labor	118
VI—Comparison of Wages Paid in Various States and California	139
VII—Cost of Living	145
VIII—California—History and Description of each County	153
IX—Investigations	325
X—Addresses	443
XI—A Manual of Distributive Coöperation	521
XII—Wages Paid, Hours of Labor, and Classes of Labor in California	588
XIII—Appendix—Assessors' Returns	630

Bureau of Labor Statistics,
San Francisco, December 1, 1886.

To his Excellency George Stoneman, *Governor of California:*

Sir: In accordance with the Act of the Legislature, approved March 3, 1883, I have the honor to submit to the twenty-seventh session of the Legislature, through you, the second biennial report of the Bureau of Labor Statistics.

Very respectfully yours, etc.,

JOHN SUMMERFIELD ENOS,
Commissioner.

CHAPTER I.

WORK OF THE BUREAU.

The Act under which this bureau is now exercising its functions is as follows, viz.:

AN ACT TO ESTABLISH AND SUPPORT A BUREAU OF LABOR STATISTICS.

[Approved March 3, 1883.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

Section 1. As soon as possible after the passage of this Act, and every four years thereafter, the Governor of the State shall appoint a suitable person to act as Commissioner of a Bureau of Labor Statistics. The headquarters of said bureau shall be located in the City and County of San Francisco; said Commissioner to serve for four (4) years, and until his successor is appointed and qualified.

Sec. 2. The Commissioner of the bureau, before entering upon the duties of his office, must execute an official bond in the sum of five thousand (5,000) dollars, and take the oath of office, all as prescribed by the Political Code for State officers in general.

Sec. 3. The duties of the Commissioner shall be to collect, assort, systematize, and present, in biennial reports to the Legislature, statistical details, relating to all departments of labor in the State, such as the hours and wages of labor, cost of living, amount of labor required, estimated number of persons depending on daily labor for their support, the probable chances of all being employed, the operation of labor-saving machinery in its relation to hand labor, etc. Said statistics may be classified as follows:

First—In agriculture.

Second—In mechanical and manufacturing industries.

Third—In mining.

Fourth—In transportation on land and water.

Fifth—In clerical and all other skilled and unskilled labor not above enumerated.

Sixth—The amount of cash capital invested in lands, buildings, machinery, material, and means of production and distribution generally.

Seventh—The number, age, sex, and condition of persons employed; the nature of their employment; the extent to which the apprenticeship system prevails in the various skilled industries; the number of hours of labor per day; the average length of time employed per annum, and the net wages received in each of the industries and employments enumerated.

Eighth—The number and condition of the unemployed, their age, sex, and nationality, together with the causes of their idleness.

Ninth—The sanitary condition of lands, workshops, dwellings, the number and size of rooms occupied by the poor, etc.; the cost of rent, fuel, food, clothing, and water in each locality of the State; also the extent to which labor-saving processes are employed to the displacement of hand labor.

Tenth—The number and condition of the Chinese in the State; the social and sanitary habits; number of married, and of single; the number employed, and the nature of their employment; the average wages per day at each employment, and the gross amount yearly; the amounts expended by them in rent, food, and clothing, and in what proportions such amounts are expended for foreign and home productions, respectively; to what extent their employment comes in competition with the white industrial classes of the State.

Eleventh—The number, condition, and nature of the employment of the inmates of the State Prison, county jails, and reformatory institutions, and to what extent their employment comes in competition with the labor of mechanics, artisans, and laborers outside of these institutions.

Twelfth—All such other information in relation to labor as the Commissioner may deem essential to further the object sought to be obtained by this statute, together with such strictures on the condition of labor and the probable future of the same as he may deem good and salutary to insert in his biennial reports.

SEC. 4. It shall be the duty of all officers of State departments, and the assessors of the various counties of the State, to furnish, upon the written request of the Commissioner, all the information in their power necessary to assist in carrying out the objects of this Act; and all printing required by the bureau in the discharge of its duty shall be performed by the State Printing Department, and at least three thousand (3,000) copies of the printed report shall be furnished the Commissioner for free distribution to the public.

SEC. 5. Any person who willfully impedes or prevents the Commissioner or his deputy in the full and free performance of his or their duty, shall be guilty of a misdemeanor, and upon conviction of the same shall be fined not less than ten (10) nor more than fifty (50) dollars, or imprisoned not less than seven (7) nor more than thirty (30) days in the county jail, or both.

SEC. 6. The office of the bureau shall be open for business from nine (9) o'clock A. M., until five (5) o'clock P. M., every day except non-judicial days, and the officers thereof shall give to all persons requesting it all needed information which they may possess.

SEC. 7. The Commissioner shall have power to send for persons and papers, whenever in his opinion it is necessary, and he may examine witnesses under oath, being hereby qualified to administer the same in the performance of his duty, and the testimony so taken must be filed and preserved in the office of said Commissioner; he shall have free access to all places and works of labor.

SEC. 8. The Commissioner shall appoint a deputy, who shall serve the same time and have the same powers as the said Commissioner, as set forth in the preceding sections; he shall procure rooms necessary for offices at a rent not to exceed fifty (50) dollars per month, and may provide the necessary furniture at an expense not to exceed five hundred (500) dollars.

SEC. 9. The salary of the Commissioner shall be twenty-four hundred (2,400) dollars per annum, and the salary of the Deputy Commissioner shall be fifteen hundred (1,500) dollars per annum, to be audited by the Controller and paid by the State Treasurer in the same manner as other State officers are paid: there shall also be allowed a sum not exceeding five hundred (500) dollars per annum for stationery and other contingent expenses of the bureau.

SEC. 10. The sum of ten thousand five hundred (10,500) dollars is hereby appropriated out of any money in the State Treasury not otherwise appropriated, for the expenses of the bureau for the first two years after its organization.

SEC. 11. This Act shall take effect and be in force from and after its passage.

It will be seen that the bureau is intended to cover a large field of action, and perform many functions.

These actions and functions devolved upon myself as Commissioner and a deputy, together with such additional help as the limited appropriation for the support of the bureau permitted.

The attention of the Legislature should be directed to the fact that although the importance of the bureau is at the present time universally recognized, yet the limited appropriations as those heretofore made, prevent me from complying as fully and successfully as is desirable with the provisions of the Act establishing and defining the duties of the bureau.

The wisdom of the Act is clearly and fully established.

It is beyond all question that a sufficient appropriation should be made to render the Act fully operative.

Great labor and research are naturally expected and have been rendered in carrying out its object to as great an extent as an economical application of the amount appropriated permitted.

What would be a sufficient appropriation depends, of course, on the work accomplished.

I suggest that an amount of not less than $2,500, or a sum corresponding to the appropriations made by the Legislatures of Massachusetts and New Jersey for like purposes. This sum to be used only for the purpose of carrying out the provisions and objects of the Act.

BUREAUS OF LABOR STATISTICS.

The following is a list of Bureaus of Labor Statistics now established in the United States, viz.:

1. Bureau of Labor, Washington, D. C., Carroll D. Wright, Commissioner.
2. Bureau of Statistics of Labor, of Massachusetts, Carroll D. Wright, Chief.
3. Bureau of Industrial Statistics, of Pennsylvania, Joel B. McCamant, Chief.
4. Bureau of Labor Statistics, of Ohio, L. McHugh, Commissioner.
5. Bureau of Statistics of Labor and Industries, of New Jersey, James Bishop, Chief.
6. Bureau of Labor Statistics, of Illinois, John S. Lord, Secretary.
7. Bureau of Labor Statistics, of New York, Charles F. Peck, Commissioner.
8. Bureau of Labor and Industrial Statistics, of Michigan, C. V. R. Pond, Commissioner.
9. Bureau of Labor Statistics, of Wisconsin, Frank A. Flower, Commissioner.
10. Bureau of Labor Statistics, of Iowa, E. R. Hutchins, Commissioner.
11. Bureau of Labor Statistics, of Connecticut, Arthur T. Hadley, Commissioner.
12. Bureau of Statistics, of Indiana, Wm. A. Peelle, Jr., Chief.
13. Bureau of Labor Statistics and Inspection, of Missouri, Oscar Kochtitzky, Commissioner.
14. Bureau of Labor Statistics, of California, John S. Enos, Commissioner.
15. Bureau of Statistics of Labor, of Maryland, Thomas C. Weeks, Chief.
16. Bureau of Labor Statistics, of Kansas, Frank H. Betton, Commissioner.

THE LABOR QUESTION.

A great deal has been said upon this question by me in the first biennial report of the bureau, which can be found in the same at page 9, Chapter II.

In addition thereto, I give such further information which I have since obtained.

The returns of the various County Assessors of the State, which are presented in full, exhibit a full and complete statement of each county returned, of all the information, required by the Act.

WAGES AND CONDITIONS OF THE LABORER.

The question of labor is at the best a very difficult one to investigate.

With the small organization and meager financial resources at the command of the bureau, it is folly for us to attempt extensive statistical investigations.

The most important question that presents itself in the statistics of labor is that of wages, the next being the cost of living.

It is needless to say that the question of wages and earnings is one of very great importance in political economy and politics.

It is a question of ninety per cent of the population. It is the question, an answer to which is necessary in order to answer those two other questions, which are being constantly put, viz.: is the laboring man in America better off than the laboring man in Europe, and is the laboring man in America as well off as he ought to be? meaning, sometimes, does he get a fair share of the product to which his labor contributes; meaning, sometimes, vaguely, do his wages allow him to live in decency and comfort, according to the modern notions of decency and comfort.

In other words, wages or earnings are the first and most important item in determining what we may call the "condition of the laboring class."

Although many recognize the desirability of statistics of wages, few people realize the difficulty of getting them.

In the first place, there are three distinct investigations which must be carried on before our statistics of wages and condition of laborers are of any value.

The first is the inquiry, what are the wages or earnings?

The second is, what are the prices of the commodities which the laborer consumes, or the cost of living?

And the third is, in what proportion are the wages applied to meeting the different items in the cost of living?

Each of these questions has its difficulties.

For instance, the first one, wages or earnings.

A great majority of laborers are paid by the day, so that the most convenient form of answering the question of wages is to give the day wages.

But in some trades laborers work only a portion of the year; in others they may be thrown out of work at any time; in many they are forced to be idle a part of the year; in all there are days lost from sickness and accident.

From the day's wages it is impossible to arrive at the year's earnings, and the same remark is true of weekly wages, and also of monthly.

Then the wage-receiving class falls into three subclasses or bodies—men, women, and children, which receive different rates of wages.

The distinction of sex is easily drawn, but that between grown persons and children is not easy to make.

But it is evident, however, that in answering the question we must have some sort of classification, and not mix up wages of men, women, and children.

Again, the laboring class is employed in many different occupations, requiring varying degrees of skill and strength.

Our only resource here is to group the laborers by employments and occupations, and take the average wages for men in the same occupation or particular work. It is the only means by which we can get tables that will convey the exact information, or that will be instructive, when compared with other countries.

To make such tables has been a very difficult task, and requiring exact returns from employers and laborers.

The second question as to cost of living, is equally important with the first question, and is also difficult to answer.

Cost of living means food, clothing, fuel, and shelter; and the question is, how far will the wages of the laborer go in providing him with food, clothing, fuel, and shelter.

As regards food and clothing, we must get statistics of the prices of these articles, that is the retail prices; prices vary in cities, towns, and villages, which makes it no easy matter to get.

The question of rent is especially difficult to solve, because high and low rent depend on the situation and character of the tenement, which it is impossible to get at statistically.

Finally, we must adjust the wages to the cost of living; that is, determine what proportion of the income of the laborer is devoted to payment of rent, what proportion to subsistence, and what proportion to clothing.

Of course it is true that these proportions depend first of all on prices and on rent, for where rents are higher a larger portion of the laborer's wages will be consumed in paying rent than where rents are low.

But any change in rents or prices will have a greater or less effect in proportion, as the part of the laborer's income devoted to that expenditure is large or small.

Again, the proportions depend on other things, as on climate, since this determines the amount of fuel, the style of house, quantity of clothing, etc.

When we consider all these things we see what a difficult question it is which we have to answer.

In regard to the methods of securing the particular information, I will say:

Circulars and blanks to county officers, asking for information as to statistics, is generally ineffective, because the officers will not take the trouble to make returns, and there is no method left by which the information sought can be obtained.

Circular blanks by mail or personal application to employers asking for the information is unsuccessful, owing to the indifference or suspicion of the employer.

Circular blanks by mail or personal application to employés is unsuccessful, because only a few answer.

Personal application to employers to inspect their pay-rolls is the best method, for we get actual wages paid, number of days lost, etc.; but quite often employers are not willing to open their pay-rolls to inspection.

With these various methods of getting information, your Excellency can readily judge the difficulty with which the bureau has to contend, in order to give correct statistics.

Within the past year a large mass of information has been collected in the United States, and when all the facts are known, and all the data are gathered, I feel confident that a solution to the questions will be found.

It concerns the great mass of the people, at least ninety per cent, as I said before, who depend on daily work for their daily living.

Do they get a due share of the product of their labor? Is there a fair distribution between the capitalist and the laborer?

If they do get a due share, is there a fair distribution of the products of industry?

Some may be disposed to urge the working classes to live on cheaper foods.

But cheaper foods may mean physical degeneracy; but I think it has been conclusively shown that, as a fixed condition, they mean a more rapid increase of population than of capital, a corresponding decrease in the rate of wages, a very unequal division of wealth and power; they mean a tendency to a state in which the democratic element is wanting—where the only business of the people is to labor, and their only duty to obey.

The statistics available do not answer the question as to the distribution of wealth with sufficient clearness, but they seem to denote that an inordinately large proportion goes to the capitalist.

In the United States the census of 1880 shows the amount paid for wages was $947,953,795, while the portion of employers of labor was $1,024,801,-847: that is, $722 net product per capita. The workingman received $347 and his employer retained $375.

Fifty-two per cent of the product is taken for rent, interest, and profits, while the remainder is given as wages for the skill and labor required in the work of production.

This may be a fair and just distribution; the presumption is against it. But all data for determining the question are not at hand, and in a problem so hard of solution as the equitable adjustment of the relations of capital and labor, every term of the equation ought to be known.

It is not a matter that touches the interests of a class of the community merely; it touches the interests of all classes, and of the whole nation.

Our greatness, strength, and permanency on this continent are intimately dependent on the health, the character, the intelligence, and the independence of the working classes.

I again say that there is no question more difficult of solution, nor more urgent in its demand for a settlement, than that of the relative position in the future of the wage workers to other laborers, physical and mental.

The first step towards its solution is the full recognition in the public mind that the question itself has an actual living existence.

That it does exist is evidenced by discussions in press, the pulpit, and legislative assemblies, by the increase and growing power of labor associations, the demand for higher wages, for less hours of labor, for increased privileges, even where the claims made are apparently unsubstantial and intangible.

The more quickly the fact of the existence and importance of this question is recognized, and earnest, honest, and able men of all conditions of life unite in an effort for a solution of it which will render justice to all, the more quickly will threatening dangers be averted.

Among many propositions advanced by some economists, is the absurd one that a cheap, plain, and uniform diet should be adopted and adhered to by laboring men.

It is as illogical to regulate the diet and make the manner of living of the poor conform to unbending rules, as it would be to establish inflexible regulations for the diet and mode of life of the rich.

The use of the products of the earth, the loom, and the anvil, will be and should be regulated only by the means to purchase and the tastes of the consumer.

To solve the labor question, it must, as before suggested, be fully understood to exist, and then be solved in a way consistent with moral, mental, and material progress.

When this is properly understood, a great step will have been taken toward its proper solution.

With a just acknowledgment of the rights of the wage workers, I have firm faith that a solution satisfactory and beneficial to all will be arrived at.

In the words of Bishop Potter, of New York, "What the laborer wants from his employer is fair and fraternal dealing and a recognition of his manhood, rather than a condescension to his inferiority."

If the wage worker is met in this spirit, good results must necessarily follow.

To so meet him, is not only politic, but right.

From all statistics gathered I find that there is about twelve thousand men out of employment in the State.

If our State had had in 1880 as many inhabitants and farms, according to its size, as the State of Maine, there would have been 321,545 farms instead of 35,934, and 3,344,680 inhabitants instead of 900,000.

The total area of the New England States (Connecticut and Rhode Island omitted), New York, and Pennsylvania is almost that of California.

According to the census of 1880, California was producing only a little over one fifth of a similar area of land.

At the same time there was in California 16,593,742 acres in farms, of which 10,669,698 were improved, having a total value of $262,051,282, while the combined States had 62,087,513 acres in farms, of which 42,348,661 acres were improved, having a total value of $2,465,601,580.

Of these farms California had 35,934, of an average size of 461 acres, valued at $16 per acre; and the combined States had 625,018 farms, of an average size of 97 acres, valued at $30 per acre.

On these farms, in California, were living at the time the census was taken, 179,670 persons; while in the other six States of the same extent there were 3,125,090 persons living on farms.

In these latter figures lies the whole secret of the wealth of production of the six States named as compared with our State.

In a word, it means small farms, each farm supporting a family, and giving employment to our unemployed laborers.

If California would show the same capacity in stock-raising as Vermont, in proportion to its size—California is seventeen times larger—it would have six times as many horses, one hundred and fifty times as many work oxen, seventeen times as many milch cows, more than six times as many other cattle, nearly twice as many hogs.

Yet in Vermont the stock is raised on small farms, with all other kinds of agricultural produce, and an extent of territory which supports a solitary herder in California, supports fifty families in Vermont.

If California had as many farmers as Vermont, in proportion to her size, instead of 35,934, as existed in 1880, there would have been 600,000.

Were the valleys and foothills covered with small farms, the wool product would be more than doubled, the cultivation of hops and potatoes increased to meet the growth of the market to any extent required, while butter and cheese would be produced on a ratio with the population.

Owing to the richness of its soil, California can support a greater population than the six States with which comparison has been made, and as the population in the agricultural district increases so will the products.

As to live stock, the State can support a far greater quantity than the Eastern States, because the dry season does not require so much stall feeding as do the winter months in the East, and, of course, on irrigated land, green food in plenty can be had all the year round.

It will, therfore, be seen that California could not only give employment to all of her unemployed laborers, but also maintain an agricultural population of over 3,000,000, and could, with such a population, produce more of the usual products of those States combined, not to speak of other products impossible in the East, by reason of the severity of the climate. All it wants is an agricultural population distributed over farms of such size that hired help will be but little required.

To obtain such population the now large tracts of land should be divided into small ones, and transportation should be reasonably cheap, and then all unemployed laboring men would have a chance.

EIGHT HOURS FOR LABOR.

My views on this subject were fully presented to your Excellency in the report upon the "seawall" investigation, which accompanies this.

As I there say, I again say, one of the demands of the wage worker is that the standard measure of a day's work should be fixed at eight hours.

It is a subject which, in a review of the labor question and situation by the Legislature, should receive earnest consideration and attention.

The advance of civilization, with new inventions and improved machinery, have lessened labor and increased production.

One of the benefits of progress claimed by the laborer as owing to him, is a reduction of the hours of labor.

Under the present system, he is not able to consume sufficient of the increased product to justify his employment at full time.

Steady work and no enforced idleness he earnestly desires, and his hope is that such a desideratum can be reached by reduced hours of labor.

That eight hours will, in the not distant future, be the standard measure of a day's work, is, in my opinion, beyond doubt.

LABOR-SAVING MACHINERY.

Under this head, in my "seawall" report to your Excellency, I gave all statistics which the bureau has been able to obtain.

Machinery in one sense means the factory system, but it is really the representative of the civilization of this period so far as mechanics are concerned.

There is something educational in the presence of machinery.

A large proportion of the machines made use of under the factory system of industry, were invented by workmen who have been desirous of finding out easier and readier means of performing their accustomed task.

ARBITRATION LAWS.

Much attention has been given in the Eastern States to arbitration laws.

The States of Pennsylvania and New York have enacted laws, which, so far, have been successful in many cases of strikes by workingmen in settling grave and complicated questions between employers and employés.

The arbitration laws of this State are general in their features, and do not look toward settlements of questions growing out of labor strikes.

The following is a copy of the New York law, viz.:

STATE BOARD OF ARBITRATION.

Chapter 410.

An Act to provide for the amicable adjustment of grievances and disputes that may arise between employers and employés, and to authorize the creation of a State Board of Arbitration.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Whenever any grievance or dispute of any nature shall arise between any employer and his employés, it shall be lawful to submit the same, in writing, to a Board of Arbitrators for hearing and settlement. Said Board shall consist of five persons. When the employés concerned are members in good standing of any labor organization, which is represented by one or more delegates in a central body, the said body shall have power to designate two of said arbitrators; and the employer shall have power to designate two others of said arbitrators, and the said four arbitrators shall designate a fifth person, as arbitrator, who shall be the Chairman of the Board. In case the employés concerned in any grievance or dispute are members in good standing of a labor organization which is not represented in a central body, then the organization of which they are members shall have the power to select and designate two arbitrators for said Board, and said Board shall be organized as hereinbefore provided. And in case the employés concerned in any grievance or dispute are not members of any labor organization, then a majority of said employés, at a meeting duly held for that purpose, shall designate two arbitrators for said Board, and the said Board shall be organized as hereinbefore provided.

Sec. 2. Any Board selected as aforesaid may present a petition to the County Judge of the county where such disputes may arise, signed by at least a majority of said Board, setting forth in brief terms the nature of the grievance or dispute between the parties to said arbitration, and praying the license or order of such Judge establishing and approving said Board of Arbitration. Upon the presentation of said petition it shall be the duty of the said Judge to make an order establishing such Board of Arbitration and referring the matter in dispute to it for hearing and adjustment. The said petition and order, or a copy thereof, shall be filed in the office of the Clerk of the county in which the said Judge resides.

Sec. 3. The arbitrators so selected shall sign a consent to act as such and shall take and subscribe an oath before an officer authorized to administer oaths, to faithfully and impartially discharge his duties as such arbitrator, which consent and oath shall be immediately filed in the office of the Clerk of the county where such dispute arises. When the said Board is ready for the transaction of business it shall select one of its number to act as Secretary, and the parties to the dispute shall receive notice of a time and place of hearing. The Chairman shall have power to administer oaths and to issue subpœnas for the production of books and papers, and for the attendance of witnesses, to the same extent that such power is possessed by the Courts of record or the Judges thereof in this State. The Board may make and enforce the rules for its government and the transaction of the business before it and fix its sessions and adjournments, and shall hear and examine such witnesses as may be brought before the Board, and such other proof as may be given relative to the matter in dispute.

Sec. 4. After the matter has been fully heard, the said Board, or a majority of its members, shall within ten days render a decision thereon, in writing, signed by them, giving such details as will clearly show the nature of the decision and the points disposed of. Such decision shall be a settlement of the matter referred to said arbitrators unless an appeal is taken therefrom as is hereinafter provided. The decision shall be in duplicate, one copy of which shall be filed in the office of the Clerk of the county, and the other transmitted to the Secretary of State Board of Arbitration, hereinafter mentioned, together with the testimony taken before said Board.

Sec. 5. When the said Board shall have rendered its decision its power shall cease, unless there may be in existence at the time other similar grievances or disputes between the same classes of persons mentioned in section one, and in such case such persons may submit their differences to the said Board, which shall have power to act and arbitrate and decide upon the same as fully as if said Board was originally created for the settlement of such other difference or differences.

Sec. 6. Within thirty days after the passage of this Act the Governor shall, with the advice and consent of the Senate, appoint a State Board of Arbitration to consist of three competent persons, each of whom shall hold his office for the term of three years. One of said persons shall be selected from the party which at the last general election cast the greatest number of votes for Governor of the State, and one of said persons shall be selected from the party which at the last general election cast the next greatest number of votes for Governor of the State, and the other of said persons shall be selected from a bona fide labor organization of this State. If any vacancy happens by resignation or otherwise, he shall, in the same manner, appoint an arbitrator for the residue of the term. If the Senate shall not be in session at the time any vacancy shall occur or exist, the Governor shall appoint an arbitrator to fill the vacancy, subject to the approval of the Senate when convened. Said Board shall have a clerk or Secretary who shall be appointed by the Board to serve one year, whose duty it shall be to keep a full and faithful record of the proceedings of the Board, and also all documents and testimony forwarded by the local Boards of Arbitration, and perform such other duties as the said Board may prescribe. He shall have power, under the direction of the Board, to issue subpœnas, to administer oaths in all cases before said Board, to call for and examine books, papers, and documents of any parties to the controversy, with the same authority to enforce their production as is possessed by the Courts of record, or the Judges thereof, in this State. Said arbitrators and clerk shall take and subscribe the constitutional oath of office, and be sworn to the due and faithful performance of the duties of their respective offices before entering upon the discharge of the same. An office shall be set apart in the Capitol by the person or persons having charge thereof, for the proper and convenient transaction of the business of said Board.

Sec. 7. An appeal may be taken from the decision of any local Board of Arbitration within ten days after the rendition and filing of such decision. It shall be the duty of said State Board of Arbitration to hear and consider appeals from the decisions of local Boards, and promptly to proceed to the investigation of such cases, and the decision of said Board thereon shall be final and conclusive in the premises upon both parties to the arbitration. Such decision shall be in writing, and a copy thereof shall be furnished to each party. Any two of the arbitrators shall constitute a quorum for the transaction of business, and may hold meetings at any time or place within the State. Examinations or investigations ordered by the Board may be held and taken by and before any one of their number if so directed. But the proceedings and decision of any single arbitrator shall not be deemed conclusive until approved by the Board, or a majority thereof. Each arbitrator shall have power to administer oaths.

Sec. 8. The fees of witnesses shall be fifty cents for each day's attendance, and four cents per mile traveled by the nearest route in getting to or returning from the place where attendance is required by the Board. All subpœnas shall be signed by the Secretary of the Board, and may be served by any person of full age authorized by the Board to serve the same.

Sec. 9. Said Board shall make a report to the next Legislature, and shall include therein such statements, facts, and explanations as will disclose the actual working of the Board, and such suggestions as to legislation that may seem to them conducive to harmonizing the relations of, and disputes between employers and the wage-earning masses, and the improvement of the present system of production.

Sec. 10. Each arbitrator shall be entitled to an annual salary of three thousand dollars, payable in quarterly installments from the Treasury of the State. The clerk or Secretary shall receive an annual salary of two thousand dollars, payable in like manner.

Sec. 11. Whenever the term "employer" or "employers" is used in this Act it shall be held to include "firm," "joint stock association," "company," or "corporation," as fully as if each of the last named terms was expressed in each place.

Sec. 12. This Act shall take effect immediately.

I recommend the passage of a similar law by the Legislature of our State, so that any dispute which may arise between the employer and employé may be settled amicably.

APPRENTICE LAWS.

The apprentice system has been gradually disappearing from the trades and shops, much to the detriment of the older workingmen, who laboriously earned their right to be classed as skilled mechanics by serving for years under a regular system of apprenticeship.

Superintendents of shops, manufacturers, and those who employ skilled mechanics could do much to elevate labor in giving employment to those who contributed the best years of their lives to acquire their trades the preference.

PROTECTION OF CHILDREN.

The subject of child labor should receive the careful attention of the Governor and Legislature.

At present there is no law which directly regulates the employment of children, and the necessity for some legislation in reference to it is apparent.

The Federated Trades Council and several other reputable organizations have repeatedly requested that some action be taken to protect children of tender years from the demands of selfish and often cruel and exacting taskmasters.

It is most desirable that an Act should be passed abolishing labor by children under fourteen years of age, especially in factories and similar workshops, and properly regulating the employment of all minors.

HOW A WAGE WORKER CAN BETTER HIMSELF AND IMPROVE HIS CONDITION.

The condition of the wage worker can be greatly improved, on the farms of our State, if the farmer would treat him good—give him good food and comfortable quarters and kind treatment.

In the different trades and occupations, he could be improved and bettered by the State not allowing convict labor to come in competition with the labor of the free man. By repealing all laws whereby all public work is performed by contract, and enacting laws as will require such work to be done by day's work, and that eight hours shall constitute a day's work, not only on public work, but in all kinds of labor and work, our laboring men will be greatly benefited.

An abrogation of the Burlingame Treaty, which I have always advocated, and a strict restriction of Chinese immigration, will be one of the greatest benefits that our laborers could desire.

A large amount of money, the earnings of the wage worker and laborer, is unnecessarily expended by him in liquors and tobacco.

For purposes of comparison, to show how much money is expended in the United States for liquors and tobacco, and the necessaries of life, I give the following tables for the year 1885:

For liquors and beer		$900,000,000
For tobacco		600,000,000
Total		$1,500,000,000
For bread	$505,000,000	
For meat	303,000,000	
For sugar and molasses	155,000,000	
For boots and shoes	196,000,000	
For cotton goods	85,000,000	
For home and foreign missions	5,500,000	
		1,249,500,000
Difference		$250,500,000

Thus, it will be seen that $250,500,000 more is expended for liquors and tobacco than there is expended for the actual necessaries of life in the United States.

In San Francisco alone, in the year 1883, there was brewed 415,705 barrels of beer. There is also in San Francieco twenty-seven hundred saloons at the present time.

In this one respect the wage worker and laborer has the weapon in his own hands, wherewith to better his condition in life.

STRIKES AND LOCKOUTS.

This office has no data or statistics concerning strikes and lockouts in the State, although we have endeavored to get the same from the Federated Trades Council, and have on every occasion failed.

But in all cases of strikes and lockouts, which have come to my notice in a semi-official manner, the same has been satisfactorily adjusted and settled to both employer and employé, as far as I have been able to ascertain.

LABOR ORGANIZATIONS.

Like religious organizations, their name is legion. They seek the same good, yet each maintains its distinctive individuality; they agree as to wrongs which should be righted, but they differ widely as to the remedy to be applied. While there is a similarity of purpose, there is an entire dissimilarity as to methods.

The marked feature of a "trade union" is protection against the encroachments of employers, while the society known as the Knights of Labor, which is classed as a "trades union," has a broader scope, embracing educational ideas.

We have no returns from any distinctively coöperative or mutual benefit union.

Several of the trades unions pay benefits in case of sickness or death, and partake of the character of mutual benefit or coöperative unions.

The following is a copy of the platform of the Knights of Labor:

PLATFORM OF THE KNIGHTS OF LABOR.

Adopted at Philadelphia, September 10, 1884.

The alarming developments and aggressiveness of great capitalists and corporations, unless checked, will inevitably lead to the pauperization and hopeless degradation of the toiling masses.

It is imperative, if we desire to enjoy the full blessings of life, that a check be placed upon unjust accumulation, and the power for evil of aggregated wealth.

This much desired object can be accomplished only by the united efforts of those who obey the divine injunction, "In the sweat of thy face shalt thou eat bread."

Therefore have we formed the Order of Knights of Labor, for the purpose of organizing and directing the power of the industrial masses, not as a political party, for it is more. In it are crystallized sentiments and measures for the benefit of the whole people; but it should be borne in mind, when exercising the right of suffrage, that most of the objects herein set forth can only be obtained through legislation, and that it is the duty of all to assist in nominating and supporting with their votes only such candidates as will pledge their support to those measures, regardless of party. But no one shall, however, be compelled to vote with the majority; and calling upon all who believe in securing "the greatest good to the greatest number," to join and assist us, we declare to the world that our aims are:

I. To make industrial and moral worth, not wealth, the true standard of individual and national greatness.

II. To secure to the workers the full enjoyment of the wealth they create, sufficient leisure in which to develop their intellectual, moral, and social faculties—all of the benefits, recreations, and pleasures of association. In a word, to enable them to share in the gains and honors of advancing civilization.

In order to secure these results we demand at the hand of the State:

III. The establishment of Bureaus of Labor Statistics, that we may arrive at a correct knowledge of the educational, moral, and financial condition of the laboring masses.

IV. That the public lands, the heritage of the people, be reserved for actual settlers; not another acre for railroads or speculators, and all lands now held for speculative purposes be taxed to their full value.

V. The abrogation of all laws that do not bear equally upon capital and labor, and the removal of unjust technicalities, delays, and discriminations in the administration of justice.

VI. The adoption of measures providing for the health and safety of those engaged in mining, manufacturing, and building industries, and for indemnification to those engaged therein, for injuries received through lack of necessary safeguards.

VII. The recognition by incorporations, of trades unions, orders, and such other associations as may be organized by the working masses to improve their condition and protect their rights.

VIII. The enactment of laws to compel corporations to pay their employés weekly in lawful money, for the labor of the preceding week, and giving mechanics and laborers a first lien upon the products of their labor, to the extent of their full wages.

IX. The abolition of contract system on national, State, and municipal works.

X. The enactment of laws providing for arbitration between employers and employed, and to enforce the decision of the arbitration.

XI. The prohibition by law of the employment of children under fifteen years of age, in workshops, mines, and factories.

XII. To prohibit the hiring out of convict labor.

XIII. That a graduated income tax be levied.

And we demand at the hands of Congress:

XIV. The establishment of a national monetary system, in which a circulating medium in necessary quantity shall issue direct to the people, without the intervention of banks; that all the national issue shall be full legal tender in payment of all debts, public and private; and that the Government shall not guarantee or recognize any private banks, or create any banking corporations.

XV. That interest-bearing bonds, bills of credit, or notes, shall never be issued by the Government, but, when need arises, the emergency shall be met by issue of legal tender, non-interest bearing money.

XVI. That the importation of foreign labor under contract be prohibited.

XVII. That in connection with the Post Office, the Government shall organize financial exchanges, safe deposits, and facilities for deposit of the savings of the people in small sums.

XVIII. That the Government shall obtain possession, by purchase, under the right of eminent domain, of all telegraphs, telephones, and railroads, and that hereafter no charter or license be issued to any corporation for the construction or operation of any means of transporting intelligence, passengers, or freight. And while making the foregoing upon the State and National Government we will endeavor to associate our own labors.

XIX. To establish coöperative institutions, such as will supersede the wage system, by the introduction of a coöperative industrial system.

XX. To secure for both sexes equal pay for equal work.

XXI. To shorten the hours of labor by a general refusal to work for more than eight hours.

XXII. To persuade employers to agree to arbitrate all differences which may arise between them and their employés, in order that the bonds of sympathy between them may be strengthened, and that strikes may be deemed unnecessary.

The following is a list of membership of the various organizations represented in the Federation Trades Council in the City and County of San Francisco, together with details pertaining to each.

THE FEDERATED TRADES.

The following is a list of the membership of the various organizations represented in the council, so far as returns have as yet come to hand:

MARITIME TRADE.

Pacific Coast Marine Firemen—Membership, 500; out of work, 150; wages, $50 per month and found; prospects, poor; work, continuous; Chinese, on board several steamers; strikes, against Spreckels Bros.; apprentice law, none.

Coasting Maritime Officers—Membership, 120; out of work, none; wages, $50 per month and found; work, during four months of winter; about 50 per cent are out of work; Chinese, about 25 per cent of men in this line are Chinese; strikes, none; apprentice law, none.

Coast Seamen's Union—Membership, —— ; out of work, 7 per cent; will be 15 per cent in winter; wages, $30, $35, and $40 per month; average, $32 50; work, men work on an average eight out of twelve months; Chinese, no competition from them; strikes, struck in March for rise from $20, $25, and $30, to $30, $35, and $40, successful; now engaged in Spreckels' strike, about 250 men out in consequence; apprentice law, none.

Steamship Sailors—Membership, 570; out of work, 150; wages, $25 to $40; average between $30 and $40; prospects, fair; work, continuous; Chinese, to the extent of all China trade; strikes, against Spreckels Bros., 100 men affected; apprentice law, none.

Ship-joiners—Membership 61; out of work, about one half; wages, on new work, $4; on old, $4 50; paid by the day; prospects, very poor; work, continuous; Chinese, do not come into competition; strikes, all engaged in both Union Iron Works and Spreckels strike; apprentice law, none.

Steamship Stevedores' Protective Union of San Francisco—Membership, 330; out of work, 110; wages, 30 cents per hour; prospects, poor; work, for about seven months in the year; Chinese, not in competition; strikes, none; apprentice law, none.

Stevedores' Protective Union—Membership, 241; out of work, two thirds; wages, 55 cents per hour: prospects, very poor; Chinese, do not come into competition; strikes, none, in last 12 months; apprentice law, none.

Oakland Longshore Lumbermen (organized six weeks)—Membership, 56; out of work, all at work off and none; wages, $2 to $2 50 per day, paid by the day; prospects, fair; Chinese, do not come into competition; strikes, none; apprentice law, none.

Steamshipmen's Protective Association—Membership, 500; out of work, none, but about twenty-five on an average; wages, waiters $25, cooks (1) $70, (2) $40, (3) $30, by the month; work, continuous; Chinese, 350 employed; strikes, two in last twelve months, the first successful, second pending; apprentice law, none; many of the men receive only apprentice wages for men's work. In this branch of business returns have not yet been received.

FURNITURE WORKERS, ETC.

International Furniture Workers' Union of America, No. 25—Membership, 52; out of work, none at present; wages, $2 to $3 per day; paid by day where not piece work; work, continuous for about two thirds of the craft; slack for four months; Chinese, no competition; strikes, have been engaged in eight-hour contest, which has about failed; apprentice law, none.

International Furniture Workers' Union, No. 15 (German)—Membership, 100; out of work, 20 per cent; employment, very uncertain; wages, $9 per week; paid, by day, hour, or by piece; work, very irregular; Chinese, no competition; strikes, engaged in eight-hour contest; apprentice law, none.

Wood Carvers—Membership, 36; out of work, 30 per cent on an average; wages, 30 cents per hour, paid weekly; work, for about nine months in the year; prospects, not very good for steady employment; Chinese, no competition; strikes, two, the first for shorter hours of labor; the second because non-union men were employed; five men were engaged in the first, four in the second; apprentice law, none.

Willow and Cane Workers—Membership, 22; out of work, none; wages, men work by the piece; average earnings, $1 25 per day; work steady all the year round; Chinese, do not come into competition at present, having been displaced by boy labor; strikes have been engaged in, six; cause, in each case, an attempted reduction of wages; five were won, the sixth was lost; were at the time disorganized.

IRON TRADES.

Iron and Steel Workers of Oakland—Membership, 60; out of work, none; wages, of the sixty members some three or four are earning $8 per day, some seventeen are getting $5 per day, the rest make from $2 to $4 per day; work, for about eleven months in the year; Chinese, do not come into competition; strikes, one at the beginning of this year; cause, attempted reduction of wages 10 per cent; lasted two weeks and threw 200 men out of employment; ended in a compromise; the reduction was accepted, but the union was recognized by the employers and a scale of prices for the year was fixed; apprentice law, no nailer is allowed to take an apprentice without the consent of three fourths of the members of the lodge, and there must not in any event be over one apprentice to every hundred machines.

Brotherhood of Pattern-makers—Membership, 60; out of work, 20 out on strike; wages, $3 25 to $3 75 per day; work, for ten months in the year; Chinese, do not come into competition; strikes, one with the Union Iron Works; apprentice law, none.

PRINTING TRADES.

Bookbinders—Membership, 57; out of work, none; wages, average $3 50 per day; work, steady all year; Chinese, do not come into competition; strikes, none; apprentice law, none, but expect to formulate one.

San Francisco Pressmen—Membership, 135; out of work, 40; prospects, poor; wages, average $15 per week; work, slack in winter; Chinese, do not compete; strikes, none; apprentice law, none.

Oakland Typographical Union—Membership, 51; out of work, one sixth; prospects, fair; wages, work by the piece and also by the week; in the latter case wages average $15; work, fairly continuous; Chinese, do not compete; strikes, none; apprentice law, none.

MISCELLANEOUS.

White Cooks and Waiters—Membership, 800; out of work, 150; prospects, business very dull; wages, cooks $50 per month, waiters $40, kitchen hands $20; work, continuous as a rule in the city, but not as a rule in the country; Chinese, come very largely into competition; strikes, one strike, in which 350 men were engaged; cause, insulting rules being posted up in certain restaurants; was settled in a few hours by the rules being taken down; apprentice law, none.

Tailors—Membership, 244; out of work, number not ascertained; wages, where paid by the week will average $20; most of the work is, however, piece work, at which $15 to $25 per week can be earned; Chinese, Chinese and female labor come largely into competition, the report complaining of the sweating system as being greatly in vogue.

Boot and Shoe Makers—Membership, 533; out of work, about one quarter; wages, average $12 per week; work, idle three months in the year; Chinese, come to a very large extent into competition; apprentice law, none.

Marble Polishers—Membership, 35; out of employment, 4; prospects, fair; wages, $2 50 to $3 per day; work, slack for two months in winter; Chinese, do not compete; strikes, one, at Black's shop, last winter; cause, attempted introduction of apprentices, lasted one week, and was successful; apprentice law, no apprentices are allowed.

Bag and Satchel Makers' Union—Membership, 16; out of work, none; wages, $2 to $3 50 per day, paid weekly; work, are only working about half time; Chinese, do not compete; strikes, one, against a 30 per cent reduction of wages, unsuccessful; apprentices, 1 allowed to every 6 journeymen.

Trunk-makers' Union—Membership, 16; out of work, 12; prospects, no prospects of those out of work getting it; wages, $2 per day; men are also employed at piece work; work, for eight months in the year; Chinese, do not compete; strikes, none; apprentice law, 1 apprentice to every 6 journeymen.

Brass Workers' Union—Membership, 35; out of work, 8 per cent; prospects, very poor; wages, $2 to $3 25 per day, payable weekly; work, continuous nearly all the year; Chinese, do not compete; strikes, none; apprentice law, not yet.

Cigar Packers' Union, No. 248—Membership, 50; out of work, about one fifth; prospects, very poor at present; wages, men make about $15 per week at piece work; Chinese, severe competition; strikes, none; apprentice law, 1 apprentice to every 15 men employed in one shop.

Car Drivers—Membership, 523; out of work, 25 to 30; prospects, very poor; wages, $2 per day for 13 hours' work; paid by the day; work, continuous; Chinese, do not compete; strikes, 1; cause, members discharged for belonging to this Assembly of K. of L.; result, successful; apprentice law, none.

Can-makers—Membership, 14; out of work, none; wages, $2 50 to $4 per day; work, for six months out of the twelve; Chinese, severe competition; strikes, none; apprentice law, none.

Laundry Workers—Membership, 160; out of work, 10 per cent; prospects, doubtful; wages, experienced workmen receive according to their specialty, $20, $25, $30, $35, $40, $45, and $50 and board and lodging, their washing being also included. It is said to be very difficult to give statistics, as the employers utilize, when possible, cheap female labor; one instance being quoted of a woman employed at $25 per month being discharged to make room for a woman at $10 per month. Chinese compete severely, working at prices ranging from $15 to $35 per month. Apprentice law, none, but there is a contract system by which inexperienced hands are taken for a term, generally of six months to one year, the employé agreeing to take $10 or $15 per month for three months, $20 for the next three months, and $25 for the last six months. Payment is, under the agreement, made two months after date, the workers receiving their first month's payment at the end of the third month; this system is said to be part of the management of the Contra Costa Laundry. Much of the work in the larger establishments is piece work, at which somewhat more is earned than by those who work at fixed wages.

Cigar-makers' International Union of Oakland—Membership, 50; out of work, none; wages, $11 per week; work, for about nine and a half months in the year; Chinese, severe competition; strikes, none; apprentice law, one to every shop, but there must not be more than two apprentices to ten men.

WAGES AND HOURS OF EMPLOYMENT.

The figures in the succeeding table, were collected by a personal canvass in most instances, and where it was possible, in other cases by circulars and written communications sent throughout the State. The sources are presumed to be reliable, as the largest and best known factories, firms, and business houses were called upon to furnish the necessary data of hours and wages paid by them to the different classes of labor they employ. The average wages given does not apply to San Francisco alone, nor were they made from the wages paid at any single establishment, where the average would be extremely high or extremely low, neither does it take into consideration any enforced idleness or loss of time, but represents a single unit of payment.

WAGES AND HOURS OF EMPLOYMENT.

Occupation.	Per Hour.			Per Day.			Per Week.			Per Month.			Hours.
	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	
Acid-makers				$3 00	$2 00	$2 20	$17 50	$12 00	$13 20				10
Agricultural implement works				5 00	2 00	2 50							10
Artificial flower makers (men)							9 00	6 00	9 00				8½
Artificial flower makers (women)							7 00	3 00	5 00				8½
Artificial stone makers													
Artists on stained glass (men)				10 00	5 00								8
Artists on stained glass (women)													9
Asphaltum workers				3 50	2 50	3 00							
Assayers										$150 00	$40 00	$75 00	8
Awning-makers (men)							18 00	9 00	12 00				
Awning-makers (women)													
Axlegrease-makers (men)							15 00	12 00					10
Axlegrease-makers (boys)							8 00	7 00	7 50				10
Bag-makers, cotton (men)							15 00	9 00	12 00				10
Bag-makers, cotton (girls and women)							7 00	3 00	5 00				10
Bag-makers, cotton (boys)							5 00	3 00	4 00				10
Bag-makers, paper (men)							26 00	12 00	12 00				10
Bag-makers, paper (girls and women)													
Bag-makers, paper (boys)							7 00	5 00	6 00				10
Bag and satchel makers				3 50	2 00	3 00							9
Bakers										*75 00	*40 00		14
Bakers, cracker				3 00	2 50	2 50							9
Ballastmen			$0 30			3 00							10
Barbers							15 00	10 00	12 00				12
Bartenders										100 00	40 00	50 00	12
Basket-makers				2 50	2 00	2 00							10
Bedspring-makers				2 00	1 00	1 50							10
Bell hangers				4 00	2 00	3 00	24 00	12 00	18 00				10
Bellows-makers													10
Belting-makers, leather							20 00	12 00	15 00				10
Billiard table makers				3 50	1 50	2 75							
Blacking-makers (men)							15 00	6 00	12 00				9
Blacking-makers (boys)							6 00	3 00	4 50				9

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* And found.

Wages and Hours of Employment—Continued.

Occupation.	Per Hour.			Per Day.			Per Week.			Per Month.			Hours.
	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	
Blacksmiths				$3 50	$3 00								10
Blacksmiths (helpers)							$12 00	$5 00	$7 50				10
Bleachers, oil										$75 00	$75 00	$75 00	10
Boat builders							21 00	18 00	21 00				9
Boatmen												*50 00	
Boiler-makers				4 25	3 00	$3 25							10
Bookbinders							24 00	15 00	18 00				10
Bookbinders (apprentices)							12 00	3 00	9 00				10
Bookfolders (girls and women)							10 00	5 00	6 00				9
Bookkeepers										200 00	40 00		9
Bookkeepers (women)													
Boot and shoe makers							15 00	10 00	12 00				10
Bottlers													
Box-makers, cigar (men)				3 00	2 00	2 50							10
Box-makers, cigar (women)							9 00	6 00	7 50				10
Box-makers, cigar (boys)							10 00	3 00	7 50				10
Box-makers, jewelry and fancy (men)							21 00	10 00	15 00				10
Box-makers, jewelry and fancy (girls and women)							6 00	4 00	5 00				10
Box-makers, jewelry and fancy (boys)							5 00	3 00	4 00				10
Box-makers, packing (men)							15 00	10 00	12 00				10
Box-makers, packing (boys)													
Box-makers, paper (men)				2 50	2 50	2 50							10
Box-makers, paper (women and girls)							9 00	3 00	5 00				10
Box-makers, paper (boys)							6 00	4 50	5 00				10
Brass finishers				3 50	2 50	3 00							10
Brass molders						3 00							10
Brass spinners				3 00	2 00	2 50							10
Brewers										90 00	50 00	60 00	12
Brewers (cellarmen)												90 00	12
Brewers (washers)										60 00	50 00	50 00	12
Brick-burners										*35 00	*25 00	*30 00	9
Brick-makers										*35 00	*30 00	*35 00	9
Bricklayers				5 50	5 00	5 00							9
Bridge builders													
Broom-makers (men)				2 00	1 50	1 75							10
Broom-makers (women and girls)							9 00	6 00	7 00				9½

Broom-makers (boys)							9 00	6 00	7 00				10
Brush-makers (men)							21 00	10 00	15 00				9
Brush-makers (women and girls)							9 00	6 00	7 00				9½
Brush-makers (boys)							7 50	5 00	6 00				9½
Butchers										125 00	50 00	85 00	10 to 14
Butchers										75 00	40 00	50 00	12
Cabinet-makers				3 50	2 50	3 00							9 to 10
Calkers				5 00	4 00	4 50							9
Candle-makers							15 00	12 00	13 50				10
Candy-makers (men)						3 00							10
Candy-makers (women and girls)							8 00	3 50	5 50				10
Candy-makers (boys)							10 00	3 00	7 00				10
Can-makers (men)							21 00	9 00	13 00				10
Can-makers (women and girls)							8 00	5 00	6 00				10
Can-makers (boys)							8 00	5 00	6 00				10
Cannery (men)							20 00	9 00	12 00				10
Cannery (women and girls)							7 00	4 50	5 00				10
Cannery (boys)							5 00	4 50	5 00				10
Car builders and repairers													
Car conductors						2 00							13
Car drivers				2 25	2 00	2 00							13
Car gripmen				2 70	2 50	2 50							13
Carders							32 00		25 00				10
Carpenters				4 00	2 50	3 50							9
Carpenters, ship and steamboat				5 00	4 00	4 50							9
Carpet beaters				3 00	2 25	2 50							10
Carpet layers				4 00	3 50	3 50	24 00	15 00	20 00				10
Carpet sewers (men)				2 00	1 00	1 50							9
Carpet sewers (women)							10 00	3 00	10 00				9
Carpet weavers							20 00	10 00	15 00				10
Carriage-makers				5 00	2 25	3 00							10
Carriage painters				4 00	2 00	3 00							10
Carriage trimmers				3 50	2 00	3 00							10
Carvers, furniture				4 50	4 00	4 50							9
Carvers, marble				6 00	4 00	5 00							9
Carvers, stone				6 00	4 00	5 00							9
Carvers, wood			$0 30			3 00							9
Catchers				3 00	2 00	2 50							10
Cement-makers										60 00	45 00	50 00	10
Chair-caners (women)							9 00	3 00	6 00				10
Chair-caners (boys)							8 00	3 50	6 00				10
Charcoal burners												40 00	10
Chemists										150 00	40 00	75 00	8

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* And found.

WAGES AND HOURS OF EMPLOYMENT—Continued.

Occupation.	Per Hour.			Per Day.			Per Week.			Per Month.			Hours.
	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	
Chocolate-makers							$20 00	$14 00	$16 00				10
Cigar-makers							15 00	10 00	11 00				10
Cigar packers							15 00	12 00	15 00				10
Clerks, retail stores				$6 00	$2 00	$2 50							12
Clerks													
Clerks													
Clerks													
Clerks													
Cloak-makers (men)							25 00	10 00	15 00				9
Cloak-makers (women)							9 00	3 00	7 50				9
Coffee and spice mills (men)							20 00	14 00	16 00				10
Coffee and spice mills (women and girls)							6 00	4 00	6 00				10
Coffee and spice mills (boys)							9 00	7 00	8 00				10
Compositors									15 00				10
Compositors													
Confectioners										*$100 00	*$40 00	*$60 00	12
Cooks (men)										*100 00	*50 00	*75 00	11
Cooks (women)										*35 00	*20 00	*25 00	
Coopers							21 00	15 00	18 00				10
Coopers (apprentices)							10 00	5 00	7 50				10
Coppersmiths				3 75	2 25	3 00							10
Copyists				4 00	1 00	2 50							9
Cotton loom fixers				2 75	2 00	2 50							10
Cotton mills (men)							20 00	9 00	12 00				10
Cotton mills (women)							10 00	6 00	7 50				10
Cotton mills (boys and girls)							6 00	3 60	4 80				10
Cotton pickers									12 00				10
Cotton weavers							18 00	11 00	13 00				10
Cordage works (men)	$0 37½	$0 17½	$0 17½										10
Cordage works (boys)	12½	12½	12½										10
Cracker bakers						2 50							9
Cracker bakery (men)				3 00	1 50	2 50							9
Cracker bakery (women and girls)							10 50	4 50	7 50				9
Cracker bakery (boys)							10 00	4 50	7 50				9
Cream tartar refiners							12 00	10 00	11 00				9
Curriers							18 00	12 00	15 00				10

Cutlers							24 00	18 00	18 00				10
Dairymen										*40 00	*25 00	*25 00	12
Demijohn coverers							12 00	7 00	8 50				10
Distillers										150 00	40 00	50 00	12
Draughtsmen, architectural										100 00	30 00	50 00	8
Draughtsmen, mechanical				5 00	3 00	3 25							9
Draymen							15 00	12 00	15 00				11
Dress-makers				2 50	1 00	1 50							10
Dress-makers (apprentices)							6 00	3 00	4 00				10
Drovers												*40 00	
Druggists										100 00	30 00	60 00	16
Druggists, manufacturing										125 00	60 00	80 00	8½
Dyers							35 00	12 00	21 00				10
Electric construction (men)													
Electrotypers							21 00	10 00	15 00				10
Engineers, civil				10 00	5 00	7 50							
Engineers, locomotive				5 00	3 00								
Engineers, marine										*150 00	*75 00	*100 00	12
Engineers, mining													
Engineers, stationary										125 00	75 00	85 00	10
Engravers, copper and steel													
Engravers, gold and silver							30 00	15 00	21 00				10
Engravers, lithographic				6 00	4 00	5 00							8
Engravers, wood				5 00	2 00	3 50							8
Farriers							15 00	10 00	12 00				10
File-makers						2 75							10
Firemen, locomotive										75 00	50 00	60 00	
Firemen, marine										*60 00	*40 00	*50 00	12
Firemen, stationary										75 00	50 00	60 00	12
Fishermen†													
Florists				4 00	2 50	3 00				90 00	65 00	75 00	10
Florists (boys)												35 00	10
Flour packers				3 00	2 50	2 75							10
Frame-makers				3 50	2 50	3 00							10
Frame ornamenters				4 50	3 50	4 00							10
Fringe and tassel makers							18 00	10 00	15 00				10
Fringe and tassel makers							8 00	3 00	6 00				10
Fringe and tassel makers							10 00	3 00	7 50				10
Furniture finishers and polishers				3 00	2 50	3 00							9 to 10
Furriers (men)							15 00	10 00	12 50				10
Furriers (women and girls)							7 00	3 00	5 00				10
Furriers (boys)									3 50				10
Galvanized iron workers				4 50	3 00	3 50	27 00	18 00	21 00				9

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*And found.

†One share to each man and one share to boat.

Wages and Hours of Employment—Continued.

Occupation.	Per Hour.			Per Day.			Per Week.			Per Month.			Hours.
	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	
Galvanized iron workers (apprentices)							$12 00	$4 00	$8 00				9
Galvanizers				$3 00	$2 00	$2 50							9
Gardeners				4 00	2 50	3 00							10
Gas fitters				4 00	3 00	3 50							9
Gas fitters (helpers)							7 00	4 00	5 00				9
Gas-house men				3 00	2 00	2 50							10 to 12
Gilders						3 50							10
Glass benders				3 50	3 00	3 00							10
Glass blowers							40 00	25 00	30 00				8
Glass-cutters				3 50	3 00	3 00							10
Glass embossers				3 50	3 00	3 00							10
Glass grinders				3 50	3 00	3 00							10
Glass, stained, artists on				10 00	5 00								8
Glass stainers				5 00	3 00	3 50							9
Glaziers				3 00	2 50	2 50							10
Glaziers, lead				5 00	3 00	3 50							10
Glove-cutters (men)							18 00	12 00	16 50				9½
Glove-makers (women)							12 00	6 00	7 50				9½
Glue-makers													
Gold and silver platers							20 00	14 00	15 00				9
Gold and silver platers (apprentices)									8 00				9
Gold beaters							14 00	9 00	11 00				9½
Grainers						5 00							8
Grainers (helpers)						2 50							8
Granite-cutters				4 50	2 50	3 50							9
Grinders							30 00	18 00	18 00				10
Grinders, saw				4 00	3 50	4 00							10
Gunsmiths							21 00	15 00	18 00				9½
Hack drivers				2 00	1 50	1 75				$60 00	$50 00	$52 50	12
Hairdressers (men)							25 00	15 00	20 00				9
Hairdressers (women)							15 00	5 00	10 00				9
Hair workers (men)							25 00	15 00	20 00				9
Hair workers (women)							20 00	5 00	8 00				9
Harness-makers							27 00	10 00	13 50				10
Harness-makers (apprentices)							10 00	5 00	7 50				10
Hat and cap makers (men)							18 00	7 50	10 00				9

Hat and cap makers (women)							9 00	4 50	7 50				9
Hatters							52 00	25 00	30 00				10
Hatters' trimmers (women)							18 00	6 00	10 00				9
Heaters							17 00	10 00	15 00				10
Herders												50 00	10 to 14
Hod carriers, bricklayers'						3 00							9
Hod carriers, plasterers'						3 00							8
Hookers				3 00	2 00	2 50							10
Horse clippers													
Horse collar makers				3 00	2 00	2 25							10
Horseshoers				4 00	3 00	3 50							10
Hosiery and underwear factory (men)							35 00	18 00	26 00				10
Hosiery and underwear factory (women)							15 00	3 00	6 00				10
Hosiery and underwear factory (boys)							6 50	3 00	6 00				10
Hostlers										60 00	30 00	50 00	14
Ink and mucilage makers							15 00	12 00	12 00				10
Iron chippers						2 50							10
Iron molders						3 25							10
Iron workers				3 50	1 75	3 00							10
Ivory turners							24 00	18 00	18 00				10
Japanners				3 50	2 00	3 00							9
Jewelers							27 00	12 00	21 00				10
Joiners				4 00	3 00	3 50							9
Joiners, ship and steamboat				5 00	4 00	4 50							9
Jute mill employés (men)							22 50	6 00	12 00				10
Jute mill employés (women)							11 00	6 00	7 50				10
Jute mill employés (boys and girls)							6 00	3 00	4 50				10
Lapidaries				4 00	2 50	3 00							10
Last-makers							21 00	15 00	18 00				10
Lathers				4 00	2 50	3 00							9
Laundry (men)							*25 00	*3 75	*7 50				10 to 14
Laundry (women)							*6 75	*1 50	*5 00				10 to 14
Lead glaziers				5 00	3 00	3 50							10
Lead pipe makers							30 00	18 00	18 00				9½
Lead smelters				3 00	2 00	2 00							10
Leather belting makers							20 00	12 00	15 00				10
Leather belting makers (boys)									4 00				10
Lithographic artists				8 00	6 00	7 00							8
Lithographic engravers				6 00	4 00	5 00							8
Lithographic printers							25 00	12 00	15 00				10
Lithographic transferers							32 00	25 00	30 00				10
Locksmiths							15 00	12 00	12 00				10
Loggers										*70 00	*30 00	*40 00	11

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* And found.

Wages and Hours of Employment—Continued.

Occupation.	Per Hour.			Per Day.			Per Week.			Per Month.			Hours.
	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	
Lime burners										$60 00	$45 00	$50 00	10
Lumbermen										*100 00	*30 00	*40 00	11
Macaroni factory employés												50 00	10
Machinists				$3 50	$3 00	$3 25							10
Maltmen												90 00	12
Marble carvers				6 00	4 00	5 00							9
Marble cutters				3 50	2 50	2 75							9
Marble letterers				4 00	4 00	4 00							9
Marble polishers				2 50	2 00	2 00							9
Marble sawyers				3 00	2 00	2 00							10
Match-makers							$25 00	$9 00	$12 00				10
Mathematical instrument makers				5 00	2 50	3 50							9
Mattress-makers				3 00	2 50	2 50							10
Mattress-makers, wire				1 50	1 00	1 00	9 00	6 00	6 00				10
Messengers													
Messengers, telegraph (boys)										15 00	12 00	13 50	
Metal spinners				3 00	2 00	2 50							10
Millers						5 00							12
Milliners													
Millwrights				4 00	3 50	3 50							9
Miners, asphaltum				2 50	2 00								
Miners, coal				2 75	2 25								
Miners, gold, hydraulic				3 00	2 50								
Miners, gold, placer				3 00	2 50								
Miners, gold, quartz				3 00	2 50								
Miners, granite				2 50	2 00								
Miners, gravel				3 00	2 50								
Miners, iron				3 00	2 50								
Miners, marble				2 50	2 00								
Miners, quicksilver				4 00	3 00								
Miners, silver				3 00	2 50								
Mirror polishers							12 00	10 00	10 00				10
Mirror silverers							20 00	12 00	15 00	80 00	50 00	60 00	10
Model-makers				4 00	3 50	3 50							9
Molders, brass						3 00							10
Molders, iron				3 50	3 25	3 25							10

Musical instrument makers													
Nailers				9 00	3 50	7 00							10
Netters (men)									25 00				10
Nurserymen				3 50	2 50	3 00							
Oil bleachers												75 00	10
Oil boilers				3 25	2 25								10
Oil pressers						2 25							
Oil refiners				3 25	2 25	3 00							
Oystermen										*85 00	*30 00	*40 00	10
Painters				3 00	2 00	3 00							9
Painters, carriage				4 00	2 00	3 00							10
Painters, fresco				10 00	3 00	6 00							8
Painters, sign and ornamental				6 00	4 00	5 00							8
Paper hangers				4 00	2 50	3 00	24 00	15 00	18 00				9
Paper-makers (men)										100 00	30 00	50 00	12
Paper-makers (boys)										30 00	25 00	30 00	12
Paper rulers							24 00	15 00	18 00				10
Pattern-makers				4 00	3 25	3 50							9
Pavers				4 00		4 00							10
Photographic operators							35 00	15 00	25 00				7 to 8
Photographic printers							25 00	15 00	20 00				9
Photographic retouchers							20 00	10 00	15 00				7
Piano-makers (men)							24 00	12 00	18 00				10
Piano-makers (boys)									6 00				10
Picture frame makers				3 50	2 50	3 00							10
Piledrivers													
Pipe-makers							30 00	18 00	18 00				10
Planing-mill men				4 00	2 50	3 00							10
Plasterers				5 00	4 00	5 00							8
Plumbers				4 00	3 00	3 50							9
Plumbers (helpers)							7 00	4 00	5 00				9
Platers, gold and silver							20 00	14 00	15 00				9
Platers, gold and silver									8 00				9
Porters										75 00	40 00	60 00	10
Pork packers										100 00	37 00	60 00	11
Potters							15 00	10 00	10 50				10
Powder-makers							25 00	12 00					10
Printers, job (men)							30 00	14 00	20 00				10
Printers, job (women and girls)							12 50	2 10	7 00				10
Printers, job (boys)							6 00	3 00	3 00				10
Rattan chair makers				3 50	3 00	3 00							10
Refiners, oil				3 25	2 25	3 00							10
Refiners, sugar (men)													

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*And found.

Wages and Hours of Employment—Continued.

Occupation.	Per Hour.			Per Day.			Per Week.			Per Month.			Hours.
	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	
Refiners, sugar (boys)													
Riggers				$5 00	$3 15	$3 50							9
Rivermen												*50 00	
Rolling mill (men)													
Rolling mill (boys)													
Rolling mill (heaters)													
Rollers				5 00	3 00	3 50							10
Roofers				4 00	3 00	3 00							10
Rope-makers (men)	$0 37½	$0 17½	$0 17½										10
Rope-makers (boys)			12½										10
Saddlers							$24 00	$15 00	$18 00				10
Sail-makers							24 00	18 00	21 00				9
Sail-makers (apprentices)							12 00	5 00	7 50				9
Sailors, coast										$125 00	$40 00	$60 00	12
Salesmen, retail										250 00	60 00	75 00	10
Salesmen, wholesale													
Saleswomen							20 00	3 00	5 00				10
Salt-makers										60 00	50 00	50 00	10
Salt refiners										90 00		90 00	10
Sash, door, and blind makers				3 00	2 50	3 00							9
Saw filers													
Saw grinders				4 00	3 50	4 00							10
Saw-makers				6 00	3 00	4 00							10
Sawyers				3 50	2 00	3 00							10
Sawyers, marble				3 00	2 00	2 50							10
School teachers (men)													
School teachers (women)													
Scourers, wool							22 00	20 00	20 00				10
Scrap pilers				1 75	1 00	1 50							10
Seamstresses							8 00	2 50	6 00				9
Servants (men)										*40 00	*30 00	*25 00	
Servants (women)										*25 00	*15 00	*20 00	
Sewer builders				3 00	2 00	2 50							10
Sewing machine operators (women)							8 50	2 50	6 00				9
Sheet iron workers				4 50	2 50	3 00							9
Sheet iron workers, galvanized				4 50	3 00	3 50	27 00	18 00	21 00				9

Ship and steamboat carpenters				5 00	4 00	4 50							9
Ship and steamboat joiners				5 00	4 00	4 50							9
Shipsmiths				4 25	3 00	3 25							9
Shipwrights				5 00	4 00	4 50							9
Shirt-cutters													
Shirt-makers													
Shoe-makers							15 00	10 00	12 00				10
Shoe-makers (apprentices)													10
Shot-makers							30 00	18 00	18 00				9½
Showcase-makers				4 00	3 00	3 00							10
Silversmiths							24 00	15 00	18 00				10
Silversmiths (apprentices)							9 00	3 00	6 00				10
Spinners, cotton									20 00				10
Spinners, cotton (women and girls, and boys)							7 50	6 00	7 00				10
Spinners, brass				3 00	2 00	2 50							10
Spinners, jute (men)									20 00				10
Spinners, jute (women, girls, and boys)							7 50		7 50				10
Spinners, wool (men)													
Spinners, wool													
Spool silk factory employés (men)										125 00		100 00	10
Spool silk factory employés (women and girls)							9 00	3 60	6 00				10
Spool silk factory employés (boys)							6 00	3 00	3 75				10
Soap-makers							15 00	12 00	13 50				10
Soap packers (boys and girls)							9 00	7 50	8 00				
Soda works employés				10 00	5 00								8
Stained glass, artists on													
Stainers, glass				5 00	3 00	3 50							9
Stair builders				4 00	3 50	3 50							9
Steam fitters				4 50	2 50	3 50							9
Steamship men										70 00	25 00		
Stereotypers							20 00	12 00	15 00				10
Stevedores			55			5 00							9
Stocking-makers (women and girls)							9 00	6 00	7 00				10
Stone carvers				6 00	4 00	5 00							9
Stone-cutters				4 50	2 50	3 50							9
Stone letterers				4 00		4 00							9
Straw hat makers							18 00	12 00	15 00				10
Sugar refinery (men)													
Sugar refinery (boys)													
Surveyors				10 00	5 00	7 50							12
Suspender-makers (women and girls)							9 00	6 00	7 50				9
Suspender-makers (boys)							10 00	6 25	8 00				9
Tack and brad-makers				4 00	2 50	3 50							10

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* And found.

WAGES AND HOURS OF EMPLOYMENT—Continued.

OCCUPATION.	PER HOUR.			PER DAY.			PER WEEK.			PER MONTH.			Hours.
	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	
Tailors							$20 00	$12 00	$15 00				10
Tailors (cutters)							45 00	20 00	30 00				9
Tanners							15 00	12 00	15 00				10
Teamsters							15 00	12 00	15 00				11
Teasers										$100 00	$65 00	$65 00	8
Telegraph operators (men)										90 00	60 00	84 00	9
Telegraph operators (women)										70 00	50 00	56 42	9
Telegraph messengers (boys)										15 00	12 00	13 50	
Tin can makers (men)							21 00	9 00	13 00				10
Tin can makers (women and girls)							8 00	5 00	6 00				10
Tin can makers (boys)							8 00	5 00	6 00				10
Tinsmiths							30 00	12 00	20 00				10
Tinsmiths (apprentices)							10 00	3 50	7 00				10
Tobacco strippers													
Tobacco workers													
Tool finishers				$3 50	$3 00	$3 00							10
Tool-makers				3 50	3 00	3 00							10
Traveling salesmen													
Trimmers, carriage				3 50	2 00	3 00							10
Trunk-makers (men)							16 00	12 00	14 00				9
Trunk-makers (women and girls)							8 00	7 00	7 50				9
Trunk-makers (boys)							9 00	5 00	7 50				9
Turners, iron							24 00	18 00	18 00				10
Turners, wood				3 50	3 00	3 25							9
Type casters							21 00	12 00	15 00				10
Type setters (men)									15 00				10
Type setters (women)													
Type writers (men)													
Type writers (women)													
Umbrella-makers (men)						3 50							10
Umbrella-makers (women)							18 00	6 00	11 00				10
Umbrella-makers (boys)							12 00	6 00	9 00				10
Underwear, ladies', cutters (men)				4 00	3 00	3 50							9
Underwear, ladies', makers (women)							8 50	2 50	6 00				9
Upholsterers				3 50	2 50	3 00							10
Varnish-makers (men)							20 00	12 00	15 00				10

Varnish-makers (boys)							5 00	3 00	4 00				10
Varnishers and polishers													
Vaqueros												50 00	10 to 12
Wagon-makers				5 00	2 25	3 00							10
Waiters										*75 00	*45 00	*45 00	11
Watch-makers							25 00	15 00	20 00				9
Weavers, carpet							20 00	10 00	15 00				10
Weavers, cotton (men, women, girls, and boys)							11 00	6 00	7 50				10
Weavers, jute (women, girls, and boys)							7 50	4 00	6 00				10
Weavers, wool													
Weavers, wool													
Well borers, artesian				5 00	3 00	3 50							10
Well borers, oil													
Wheelwrights				5 00	2 25	3 00							10
White lead makers (men)				2 50	1 50	2 00							10
White lead makers (boys)										30 00	20 00	25 00	10
Whiteners				3 50	2 50	3 00							9
Wine-makers										150 00	65 00	75 00	9 to 10
Wire (barb) fence makers									10 00				10
Wire cleaners							12 00	10 00	11 00				10
Wire drawers							18 00	15 00	17 50				10
Wire rope makers									15 00				10
Wire weavers							21 00	15 00	18 00				10
Wire workers							18 00	12 00	13 00				10
Wood carvers			$0 30			3 00							9
Wood carvers, furniture				4 50	4 00	4 50							9
Wood cutters										65 00	25 00	30 00	10
Wood engravers				5 00	2 00	3 50							8
Wooden ware workers							15 00	7 50	10 00				10
Woolen mill employés (men)							41 50	9 00	15 00				11
Woolen mill employés (women)							12 50	6 00	9 00				11
Woolen mill employés (boys)							6 00	4 50	5 00				11
Wool graders				4 00	2 50	3 00				125 00	100 00	100 00	10
Wool scourers				3 00	1 50	2 25	20 00		20 00				10
Wool sorters						2 50							10

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* And found.

CHAPTER II.

AGRICULTURAL.

In addition to the statistics furnished by this office to the California State Horticultural Society in my report, I also give the following statistics, under the above head.

The following figures show the amount of green fruit shipments to the Eastern States by rail, viz.:

YEARS.	Pounds.	YEARS.	Pounds.
1871	1,832,310	1879	3,126,400
1872	2,639,972	1880	3,141,500
1873	2,896,530	1881	7,248,300
1874	5,029,840	1882	7,919,340
1875	2,993,720	1883	19,222,580
1876	4,201,730	1884	11,996,070
1877	3,818,310	1885 (six months)	23,937,630
1878	2,866,420		

The following figures show the amount of dried fruit shipments to the Eastern States by rail, viz.:

YEARS.	Pounds.	YEARS.	Pounds.
1875	548,227	1881	2,074,420
1876	630,770	1882	4,532,350
1877	730,710	1883	3,097,950
1878	259,170	1884	2,103,350
1879	1,761,750	1885 (six months)	658,630
1880	412,480		

The following figures show the amount of canned goods shipments to the Eastern States by rail, viz.:

YEARS.	Pounds.	YEARS.	Pounds.
1872	182,090	1879	3,111,680
1873	678,580	1880	6,707,650
1874	457,290	1881	18,768,200
1875	759,040	1882	25,163,190
1876	1,529,910	1883	26,397,700
1877	1,731,530	1884	21,695,740
1878	1,700,930	1885 (six months)	7,068,400

Shipments of dried fruits and canned goods have been made by steamers and sailing vessels, but the exact amount of these cannot be obtained.

It may be noted here that the first six months of the year 1885—January to June—are not the months when dried fruits and canned goods are shipped in quantities.

The following figures show the amount of raisins shipped to the Eastern States by rail, viz.:

YEARS.	Pounds.
1874	220
1875	------------
1876	68,440
1877	239,260
1878	192,860
1879	942,770
1880	669,660
1881	1,490,320
1882	868,770
1883 (a bad year)	295,050
1884	3,150,290
1885 (six months)	788,210

The following figures show the amount of green garden vegetables shipped to the Eastern States by rail, viz.:

YEARS.	Pounds.
1874	261,310
1875	------------
1876	8,000
1877	230,110
1878	20,000
1879	------------
1880	41,100
1881	115,540
1882	526,870
1883	5,147,310
1884	5,509,880
1885 (six months)	7,410,310

I am unable to furnish any statistics relative to home consumption of green fruits, dried fruits, canned goods, or green garden vegetables.

FARM LABORERS.

The condition of the farmers and farm laborers has been set forth in the report to said California Horticultural Society, and also in the letters attached to it.

The returns of the Assessors, presented herewith, give in detail, by counties, the statistics of the number employed, wages paid, and hours of labor.

NUMBER OF ACRES SOWN FOR THE CROP OF 1886.

The following statistics show the number of acres sown to cereals in the State of California for the year 1886, and the average annual production:

WHEAT.

Number of Acres Sown, and Average Production per Acre, in Centals—1885.

Counties.	Acres Sown.	Average—Centals.	Counties.	Acres Sown.	Average—Centals.
Alameda	63,412	12	Sacramento	86,888	10
Alpine			San Benito	34,000	$9\frac{50}{100}$
Amador	3,800	12	San Bernardino	4,210	$2\frac{60}{100}$
Butte	77,758	12	San Diego	26,885	13
Calaveras	25,600	8	San Francisco		
Colusa	401,901	12	San Joaquin		
Contra Costa	139,600		San Luis Obispo	42,000	12
Del Norte	42	15	San Mateo	25,000	
El Dorado	2,365	$12\frac{28}{100}$	Santa Barbara	67,420	
Fresno	145,839	$7\frac{50}{100}$	Santa Clara	43,768	10
Humboldt	732	20	Santa Cruz	2,620	$12\frac{20}{100}$
Inyo	1,858	12	Shasta	4,367	$9\frac{5}{100}$
Kern	11,500	12	Sierra	220	
Lake	4,400	12	Siskiyou	10,000	$10\frac{80}{100}$
Lassen	9,756	$24\frac{40}{1000}$	Solano	54,516	$10\frac{75}{100}$
Los Angeles	247,500	12	Sonoma	30,000	20
Marin	870	10	Stanislaus	300,000	8
Mariposa	653	9	Sutter	97,972	$11\frac{75}{100}$
Mendocino	8,460	15	Tehama	110,500	9
Merced	181,509	10	Trinity	801	10
Modoc	34,970	15	Tulare		
Mono			Tuolumne		
Monterey	83,000	10	Ventura	20,000	15
Napa	23,550	$11\frac{68}{100}$	Yolo	130,000	10
Nevada			Yuba	25,465	9
Placer	47,500	$11\frac{40}{100}$			
Plumas			Total	2,638,582	

BARLEY.

Number of Acres Sown, and Average Production per Acre, in Centals—1885.

Counties.	Acres Sown.	Average—Centals.	Counties.	Acres Sown.	Average—Centals.
Alameda	34,731	$16\frac{16}{100}$	Sacramento	21,917	12
Alpine			San Benito	14,000	12
Amador	4,100	18	San Bernardino	21,321	$6\frac{50}{100}$
Butte	8,866	14	San Diego	7,807	$13\frac{50}{100}$
Calaveras	8,600	8	San Francisco		
Colusa	38,417	16	San Joaquin		
Contra Costa	26,400		San Luis Obispo	8,100	15
Del Norte	25	18	San Mateo	10,000	
El Dorado	1,014	13	Santa Barbara	31,890	
Fresno	1,790	$10\frac{50}{100}$	Santa Clara	30,630	30
Humboldt	1,091	23	Santa Cruz	1,285	22
Inyo	1,634	11	Shasta	2,029	12
Kern	2,000	14	Sierra	1,000	
Lake	3,000	13	Siskiyou	6,000	12
Lassen	11,005	30	Solano	15,548	$13\frac{25}{100}$
Los Angeles			Sonoma	30,000	25
Marin	1,100	12	Stanislaus	24,992	9
Mariposa	3,390	12	Sutter	13,224	$14\frac{33}{100}$
Mendocino	2,600	17	Tehama	14,600	10
Merced	25,379	11	Trinity		
Modoc	30,520	18	Tulare		
Mono			Tuolumne		
Monterey	67,000	18	Ventura	30,000	20
Napa	2,913	$13\frac{74}{100}$	Yolo	5,000	15
Nevada			Yuba	8,860	$8\frac{40}{100}$
Placer	21,438	$10\frac{30}{100}$			
Plumas			Total	638,776	

OATS.

Number of Acres Sown, and Average Production per Acre, in Centals—1885.

Counties.	Acres Sown.	Average—Centals.
Alameda	1,497	10$\frac{50}{100}$
Alpine	----	----
Amador	----	----
Butte	315	24
Calaveras	800	6
Colusa	----	----
Contra Costa	1,500	----
Del Norte	269	24
El Dorado	40	11
Fresno	110	8
Humboldt	6,623	30
Inyo	950	8
Kern	----	----
Lake	500	11
Lassen	27,500	24
Los Angeles	----	----
Marin	----	----
Mariposa	8	6
Mendocino	2,000	16
Merced	11,240	4
Modoc	----	----
Mono	----	----
Monterey	20,000	12
Napa	1,888	15$\frac{18}{100}$
Nevada	----	----
Placer	4,832	7$\frac{10}{100}$
Plumas	----	----
Sacramento	1,109	13
San Benito	----	----
San Bernardino	----	----
San Diego	10	20
San Francisco	----	----
San Joaquin	----	----
San Luis Obispo	1,000	15
San Mateo	2,500	----
Santa Barbara	----	----
Santa Clara	108	20
Santa Cruz	1,380	22
Shasta	774	12
Sierra	1,300	----
Siskiyou	3,500	8$\frac{30}{100}$
Solano	----	----
Sonoma	5,000	25
Stanislaus	2,340	6$\frac{50}{100}$
Sutter	128	11
Tehama	3,155	13
Trinity	64	14
Tulare	----	----
Tuolumne	----	----
Ventura	----	----
Yolo	----	----
Yuba	800	12$\frac{80}{100}$
Total	78,490	----

CORN.

Number of Acres Planted, and Average Production per Acre, in Centals—1885.

Counties.	Acres Planted.	Average—Centals.
Alameda	1,450	20
Alpine	----	----
Amador	550	20
Butte	1,259	20
Calaveras	2,270	15
Colusa	----	----
Contra Costa	2,500	----
Del Norte	25	18
El Dorado	----	----
Fresno	1,283	12$\frac{85}{100}$
Humboldt	194	15
Inyo	----	----
Kern	2,200	30
Lake	120	----
Lassen	----	----
Los Angeles	46,000	25
Marin	----	----
Mariposa	----	----
Mendocino	500	17
Merced	609	17
Modoc	----	----
Mono	----	----
Monterey	1,500	30
Napa	1,031	18
Nevada	----	----
Placer	----	----
Plumas	----	----
Sacramento	2,290	16
San Benito	400	18
San Bernardino	264	12$\frac{25}{100}$
San Diego	300	9
San Francisco	----	----
San Joaquin	----	----
San Luis Obispo	2,000	----
San Mateo	50	----
Santa Barbara	2,143	----
Santa Clara	323	15
Santa Cruz	800	25
Shasta	3,040	20
Sierra	----	----
Siskiyou	150	----
Solano	250	14
Sonoma	60,000	40
Stanislaus	370	27
Sutter	140	22$\frac{50}{100}$
Tehama	150	15
Trinity	----	----
Tulare	----	----
Tuolumne	----	----
Ventura	5,000	30
Yolo	----	----
Yuba	----	----
Total	136,073	----

HAY.

Number of Acres Sown with Wheat, Barley, and Oats, and Average Production per Acre, in Centals—1885.

COUNTIES.	Acres Sown.	Average—Centals.	COUNTIES.	Acres Sown.	Average—Centals.
Alameda	32,829	32	Sacramento	2,438	20
Alpine			San Benito		
Amador	200	20	San Bernardino	375	20
Butte	4,667	2	San Diego	2,216	25
Calaveras	1,000	20	San Francisco	200	
Colusa			San Joaquin		
Contra Costa			San Luis Obispo	1,000	40
Del Norte	55	60	San Mateo		
El Dorado	3,695	20	Santa Barbara	2,810	
Fresno	2,381	24	Santa Clara	33,969	30
Humboldt	218	$2\frac{18}{100}$	Santa Cruz	807	35
Inyo			Shasta	2,379	$17\frac{16}{100}$
Kern			Sierra		
Lake	2,800	30	Siskiyou	100	
Lassen			Solano		
Los Angeles			Sonoma	30,000	20
Marin	200	15	Stanislaus	777	20
Mariposa	979	20	Sutter	1,210	$1\frac{35}{100}$
Mendocino	3,250	25	Tehama	9,000	20
Merced	5,152	22	Trinity	126	
Modoc			Tulare		
Mono			Tuolumne		
Monterey			Ventura	5,000	20
Napa	2,043	$1\frac{80}{100}$	Yolo	15,000	40
Nevada	3,860		Yuba	4,340	
Placer	2,926				
Plumas			Total	180,092	

HAY.

Number of Acres Sown with Barley, and Average Production per Acre, in Centals—1885.

COUNTIES.	Acres Sown.	Average—Centals.	COUNTIES.	Acres Sown.	Average—Centals.
Alameda	11,623	32	Sacramento	2,971	24
Alpine			San Benito		
Amador	7,500	30	San Bernardino	5,320	15
Butte	527	2	San Diego	8,956	25
Calaveras	11,500	15	San Francisco	200	
Colusa			San Joaquin		
Contra Costa			San Luis Obispo	12,500	40
Del Norte	25	60	San Mateo		
El Dorado	2,980	19	Santa Barbara	3,795	
Fresno	3,531	$24\frac{15}{100}$	Santa Clara	27,781	20
Humboldt	4	40	Santa Cruz	932	35
Inyo			Shasta	1,520	$15\frac{36}{100}$
Kern	4,000	30	Sierra		
Lake	1,000	30	Siskiyou		
Lassen			Solano		
Los Angeles	86,250	16	Sonoma	20,000	30
Marin			Stanislaus	3,000	20
Mariposa	4,055	20	Sutter	520	$1\frac{20}{100}$
Mendocino	1,100	30	Tehama	4,150	20
Merced	2,238	25	Trinity		
Modoc	1,900	12	Tulare		
Mono			Tuolumne		
Monterey			Ventura	10,000	30
Napa	238	$1\frac{75}{100}$	Yolo		
Nevada	914		Yuba	1,800	
Placer	2,542				
Plumas			Total	245,435	

HAY.

Number of Acres Sown with Oats, and Average Production per Acre, in Centals—1885.

COUNTIES.	Acres Sown.	Average—Centals.	COUNTIES.	Acres Sown.	Average—Centals.
Alameda	3,117	40	Sacramento	10,798	23
Alpine	--------	--------	San Benito	--------	--------
Amador	--------	--------	San Bernardino	--------	--------
Butte	3,718	3	San Diego	379	23
Calaveras	680	15	San Francisco	200	--------
Colusa	--------	--------	San Joaquin	--------	--------
Contra Costa	--------	--------	San Luis Obispo	1,300	40
Del Norte	453	60	San Mateo	--------	--------
El Dorado	1,666	18	Santa Barbara	1,140	--------
Fresno	555	20	Santa Clara	18,918	30
Humboldt	5,607	40	Santa Cruz	1,140	30
Inyo	--------	--------	Shasta	3,040	$16\frac{12}{100}$
Kern	--------	--------	Sierra	--------	--------
Lake	1,500	30	Siskiyou	--------	--------
Lassen	--------	--------	Solano	--------	--------
Los Angeles	1,200	60	Sonoma	5,000	30
Marin	4,600	20	Stanislaus	--------	--------
Mariposa	--------	--------	Sutter	1,080	$1\frac{22}{100}$
Mendocino	3,000	36	Tehama	4,230	20
Merced	--------	--------	Trinity	4	--------
Modoc	--------	--------	Tulare	--------	--------
Mono	--------	--------	Tuolumne	--------	--------
Monterey	--------	--------	Ventura	--------	--------
Napa	4,297	$1\frac{72}{100}$	Yolo	--------	--------
Nevada	1,204	--------	Yuba	750	--------
Placer	22,322	20			
Plumas	--------	--------	Total	100,898	--------

Grand total of hay acres in the State, 526,425.

THE HOP TRADE ON THE PACIFIC COAST AND ELSEWHERE.

The following statistics show the situation of the hop trade on the Pacific Coast and elsewhere.

The hop trade of the Pacific Coast in 1884 was the most unremunerative and unsatisfactory of any year in a long time. The high prices of 1882 and 1883 naturally led to over-production and unwise speculation. The crop of 1884 was the largest ever produced on this coast, while prices, as a rule, were probably the lowest, some sales being made at 3 to 4 cents per pound. It is only within the last decades that hop growing has received attention. The earliest information at hand concerning the crop in this State goes back to 1867, when the crop was estimated at 2,000 bales, equal to 400,000 pounds. In 1868, several large growers entered into contracts to supply consumers for three years at 37½ cents per pound. This stimulated others to put in crops. The yield for 1869 was 3,000 bales, and new crop sold that year as low as 8 to 10 cents. Prices were also low in the following year. Those two bad years made some disgusted, and several yards were abandoned and plowed up. In 1873, the State crop was only 3,500 bales. The decreased yield resulted in higher prices, and in 1875 some California growers sold their crops in advance at 25 to 30 cents. Since January 1, 1876, the yield of California, Oregon, and Washington Territory is estimated to have been as follows:

Years.	Bales.	Years.	Bales.
1876	16,500	1881	16,300
1877	14,000	1882	26,400
1878	15,000	1883	38,700
1879	11,000	1884	70,000
1880	11,500		

Some estimates placed the crops last year at nearly 72,000 bales, against upwards of 40,000 bales in 1885.

The crop for the past three years has been produced as follows:

	Bales. 1882.	Bales. 1883.	Bales. 1884.
California	14,200	27,000	41,500
Oregon	3,700	3,200	8,200
Washington Territory	8,500	8,500	20,300
	26,400	38,700	70,000

The most noted increase last year was in Washington Territory. California has not forged ahead very rapidly in the past two years. Hop values are of the most fickle character. The demand is necessarily limited, and the aim is not to produce in excess of remunerative rates. But the crop is always a precarious one. There are climatic and other contingencies to be considered, and it is utterly impossible to make any very accurate calculations as to what the yield will be from the acreage under cultivation. Growers know something of the wants of the world; but in the case of any serious damage, the supply runs short, and high prices follow. It costs from 8 to 15 cents to produce hops and get them on the market. The yield varies from 1,000 to 2,000 pounds per acre in this State and from 1,000 to 3,000 pounds in Oregon and Washington Territory. Malsters can use substitutes to some extent; but in a year of over-production producers are without remedy, as the crop deteriorates in strength by holding. In good years money is made rapidly, and in bad years losses are heavy. The price of hops in the San Francisco market has varied from year to year as follows:

Years.	Cents Per Pound.	Years.	Cents Per Pound.
1864	30 to 35	1875	10 to 30
1865	25 to 37	1876	20 to 30
1866	55 to 80	1877	6 to 12
1867	35 to 65	1878	5 to 12
1868	18 to 25	1879	35 to 45
1869	8 to 46	1880	10 to 20
1870	10 to 15	1881	15 to 30
1871	50 to 60	1882	20 to 95
1872	40 to 60	1883	15 to 90
1873	30 to 35	1884	10 to 30
1874	25 to 35		

Small lots of fancy hops sold as high as $1 to $1 05 both in 1882 and in 1883, but the cases were so exceptional we have not included these in the range for those years. A little over a year ago, or before the 1884 crop had matured in this State, contracts were made for future delivery at from 15 to 31 cents and several lots were closed at 27½ to 30 cents. These were figures paid in May and June, 1884. Many more could then have been sold at the same rate, and growers subsequently wished they had complied with the demand. Buyers, on the other hand, about the same time, wished they had not bought so freely. The motive for the situation in May and June, 1884, was the reported partial failure of the English crop. This was overestimated. Then Germany had a larger crop than expected; so between the two causes speculators came to grief. There were 22,000 bales of hops exported from the coast in 1884. The local consumption was 5,000 bales, and the stock carried over into 1885 was some 45,000 bales. This is the largest quantity ever carried over on the first of January.

The nominal range for 1884 hops since January first has been as follows: In January, February, and March, 10 to 15 cents; in April, 4 to 9 cents; in May, 3½ to 8 cents; in June and July, 3 to 7 cents. About the middle of July upwards of 100 bales really choice sold from private hands at 6 cents, and 100 bales good quality sold in the auction room at 1¾ cents. Later in the same month the range fell 2½ to 5½ cents. Since August there has been hardly any movement in California hops, and the range for crop 1884 has been 3 to 6 cents. The crop of 1885 is now being picked. A sample bale was sent forward to New York in August, arriving there a few days ago, and brought out bids of 8 to 10 cents. What the crop on this coast will be this year will depend somewhat on the prices of the next few weeks. Picking costs about 1 cent per pound, at least that was the case last year. In some cases as high as $1 10 per 100 pounds was paid in 1884. The same parties are getting some white labor this year at 60 cents per 100 pounds. In the same section, the Chinese are offering to do the work at 40 cents. Unless there be a prospect of getting a new dollar back for an old one, some yards will go unpicked this year.

Shipments are made almost exclusively by rail. Formerly Oregon and Washington Territory hops were sent here for a market. Now these hops go direct to the East by the Northern Pacific Railroad. It is expected the railroad people will help out in the matter of freight, now that values are so much lower than the average of former years. Indeed, we believe a new and lower tariff has already been promulgated. By this tariff the rate is reduced from 3 cents to 2 cents, if packed at 10 pounds cubic foot and valued at not over 12 cents per pound.

A recent number of "Bradstreet's" contains an exhaustive review of the world's hop crop. New York is the great hop center of the United States. It sustains the same relation to this country that Kent and Sussex Counties do to England. The census report for 1879–80 credited New York with 39,072 acres of hops, yielding 21,628,931 pounds. The best producing sections of that State are confined to some half a dozen counties. These, in the order of their acreage and yield in 1879, as per census report, were as follows:

COUNTIES.	Acres.	Pounds.
Otsego	9,118	4,441,029
Oneida	5,937	4,075,651
Madison	6,076	3,823,963
Schoharie	5,871	2,982,873
Franklin	2,075	1,083,850
Montgomery	1,612	1,001,403
Ontario	1,282	807,538

There are thirteen other counties in New York where the acreage for that year varied 185 to 972 acres. The total for the twenty-four unenumerated counties was 933 acres. The above seven counties had 31,971 acres in hops in 1879, yielding 18,216,307 pounds. These counties, therefore, represent about 80 per cent of the business in that State. The average yield for the whole State in 1879 was 553 pounds to the acre. The largest yield was 736 pounds, in Livingston County, and the smallest 318 pounds, in Oswego County. The largest yield in the counties grouped above was 686 pounds, in Oneida County, while the average for the whole seven counties was about 600 pounds. We do much better than that on this coast. As the result of much correspondence, "Bradstreet's" is of the opinion that there are 41,966 acres under hops in New York this year, and that the yield will be 27,833,700 pounds, or 662 pounds to the acre. The seven counties named above are put down at 35,261 acres, with an estimated yield of 23,032,700 pounds.

The census takers in 1879–80 found that hops were produced in eighteen of the States and Territories. Those having 100 acres and upwards in hops in 1879 were as follows:

	Acres.	Average.	Pounds.
California	1,119	1,298	1,444,077
Maine	219	220	48,214
Michigan	491	541	266,010
New York	39,072	553	21,628,931
Oregon	304	803	244,371
Vermont	264	414	109,350
Washington Territory	534	1,317	703,277
Wisconsin	4,439	443	1,966,827
Total	46,441	568	26,411,057
Other States	568	350	135,321
Total	46,800	565	26,546,378

In the ten States not named, the area runs from a single acre (as in Kansas) up to 83 acres (as in Pennsylvania). Maine shows the poorest yield, only 220 pounds to the acre, and in Washington Territory the best yield, namely, an average of 1,317 pounds to the acre. The hop growers of New York and Wisconsin are astonished at the results of hop growing on the Pacific Coast in the past few years. According to "Bradstreet's" the yield here for 1885 will be as follows, as compared with last year:

	1884.	1885.
California	7,560,000	4,725,000
Oregon	1,800,000	1,780,000
Washington Territory	4,140,000	4,300,000
British Columbia	22,500	22,500
Total	13,522,500	10,827,500

In 1879 New York produced 81½ per cent, and Wisconsin, Iowa, and Minnesota 7½ per cent. New York is now credited with 70 per cent, and the Pacific Coast 25 per cent.

For the past fifteen years the European crop has averaged 109,731,200 pounds, of which England has contributed an average of 41,731,200 pounds. The crop in Europe for the past two years has been as follows:

	1883. Pounds.	1884. Pounds.
England	56,000,000	41,440,000
Bavaria	21,840,000	24.416,000
Bohemia	7,280,000	10,416,000
Belgium and Holland	16,800,000	14,000.000
France	9,091,488	6,776,000
Wurtemberg	6,496,000	8,736,000
Baden	3,584,000	5,040,000
Posen	2,352,000	3,136,000
Altmark, Brunswick, Hanover	1,568.000	2,912,000
Alsace-Lorraine	11,270,400	10,080.000
Upper Austria, Styria, Gallicia, Hungary	3,808,000	3,584,000
Other districts	3,369,000	3,920,000
Totals	143,457,888	134,456,000

The yield in the same countries for 1882 was only 77,467,488 pounds, and that gave rise to the high prices for American hops that year. For 1881 the European yield was 146,387,288 pounds. The English crop was all gathered last year by the twenty-sixth of September. There were 69,000 acres in hops in the United Kingdom in 1884, and the average yield was six hundred weight per acre, or about one hundred weight short of an average. The aphides, in winged and wingless forms, threatened to destroy the whole crop about tying time last year, but vigorous washing, assistance of ladybirds, and glorious sunshine saved the crop in most sections, and the quality was said to be the best since 1868.

The first bale of Bohemian hops of this year's growth arrived at New York on the seventeenth of August, eight days earlier than last year.

The situation on the twentieth of August was summed up by "Bradstreet's" as follows:

In hands of dealers and growers	9,000.000 pounds.
In hands of brewers	4,400,000 pounds.
Stock of old hops	13,400,000 pounds.
1885 crop, all picked, about	40,000,000 pounds.
Supply	53,400,000 pounds.
Needs of brewers for 1885-86	28,500,000 pounds.
Surplus for export	24,900,000 pounds.

This surplus is equal to 138,333 bales of 180 pounds each. The export from September 1, 1884, to August 20, 1885, were 37,000, and the average exports for the past sixteen years is 39,000 bales, though in 1883–4 the quantity exported was nearly 80,000 bales. It is somewhat difficult to get at the consumption of hops throughout the world, as the quantity of hops used to the barrel of beer varies in different countries. In Great Britain this average is put as high as two pounds, and in this country and Canada as low as one and a half pounds, while a fair average for other countries is supposed to be one and three quarters pounds. The production of beer throughout the world is given at 124,000.000 barrels of thirty-one gallons each. This brew would require 221,500,000 pounds of hops. The world's supply of hops, exclusive of Australia and Canada, is given as follows:

American crop of 1885	40,000,000 pounds.
European crop of 1885	142,000,000 pounds.
Crop of 1885	182,000,000 pounds.
1884, hops in United States	13,400,000 pounds.
1884, hops in Europe	15,600,000 pounds.
Available supply	211,000,000 pounds.
Estimated wants	220,500,000 pounds.
Estimated deficiency	10,500,000 pounds.

It is probable that the estimated wants of the world will bear a considerable reduction.

The following is a report from the bureau to the California State Horticultural Society, "upon the advisability of displacing Chinese in the orchards, vineyards, and hopyards of the State of California during the fruit harvest of the year 1886."

REPORT.

Office of the California State Bureau of Labor Statistics,
Corner Geary and Dupont Streets,
San Francisco, April 30, 1886.

To the officers and members of the California State Horticultural Society:

Gentlemen: I have the honor to acknowledge the receipt of a communication from you, of which the following is a copy, viz.:

> *Resolved*, That we extend an invitation to Hon. John S. Enos, State Commissioner of Labor Statistics, to Hon. C. F. McGlashan, Chairman of the California Anti-Chinese Non-Partisan Association, and to the chief officer of the Knights of Labor, to attend our meeting at the Grand Hotel on Friday, April 30, 1886, and present statements concerning the labor supply, other than Chinese, which will be available for the fruit harvest of 1886.
>
> *Resolved*, That it is not the design of this invitation to call forth a general discussion of the Chinese question, for we are already convinced of the advantage of substituting other labor for the Chinese, if enough of laborers, of equal efficiency, can be had, but we do not know from whence such supply can be drawn, and desire information from those who are giving the subject most attention.

In reply thereto I respectfully present to you a statement, as requested, as follows, viz.:

In order to ascertain as near as possible the number of white men out of employment in the City and County of San Francisco, and also to ascertain how many of such unemployed white men could be utilized on the farms of the State during the fruit harvest of the present year (1886), I called a meeting of all the employment agents (both white and Chinese), they being familiar as to the number of men so unemployed.

This meeting was conducted under the provisions of the Act creating the Bureau of Labor Statistics.

I herewith submit to you the proceedings of said meeting, which is as follows, viz.:

Office of the Bureau of Labor Statistics of the State of
California, San Francisco, April 6, 1886.

Proceedings had in an investigation before the Commissioner of Labor Statistics this day, at seven o'clock p. m., in the office of said Commissioner, Room 64, Blythe's Building, in the City and County of San Francisco, State of California, which investigation related to "the supply of white labor which will be available for the fruit harvest of the present year, 1886, and from whence a supply of such labor can be had for such purpose."

This investigation was attended by proprietors of employment offices only, pursuant to orders and subpœnas issued by said Commissioner, which directed a representative proprietor of each employment office in San Francisco to attend said investigation.

Mr. Enos, the Commissioner of the Bureau of Labor Statistics, on opening the investigation said, "That its object was to ascertain if it is practicable in the immediate near future to supplant Chinese labor and help in the vineyards and orchards of the State with white labor—that according to a rough estimate, there is over 30,000 Chinese employed during the fruit harvest of the State—in such orchards and vineyards."

TESTIMONY.

James F. Crossett.

Called and sworn, testified as follows:

I keep an employment office in San Francisco, for white labor; have been in the business for seventeen years, with the exception of about four years. I furnish help and laborers of all kinds.

There are about 5,000 unemployed men in the City of San Francisco; they are skilled and unskilled workmen; this number does not include tailors and cigar-makers.

This time last year there was a great many more than this number out of employment; I should judge about two thirds more.

One of the principal reasons of the decrease is, that a great many of them have taken the places of Chinamen.

Among the applicants for work, unskilled laborers and farmers predominate.

White men on farms are paid from $18 to $25 a month and board, and they have work for about two thirds of the year; do not know what is paid Chinese.

If I should receive an order from Solano County for 2,000 white men for work during the fruit harvest of this year, all of the employment offices in San Francisco could fill the order and furnish the men inside of thirty days, at $25 a month and board.

This also applies to all other counties. If a gradual application would be made, we could fill all orders at the same pay.

About 800 men apply to me daily for work; they are all good, clean, and respectable appearing men; they are the finest looking men that I have ever seen; about seven eighths of them are single men, and a great many of them are lately from the Eastern States.

About one half of the domestics in our State are Chinese.

About one half of the applications for employment at my office are for farm labor.

The condition of wage-workers on a farm would be bettered, if they were paid fair living wages, received good and kind treatment, and were furnished good food and accommodations, and the farmers themselves would be better off.

Charles R. Hansen.

Called and sworn, testified as follows:

I keep a white employment office in San Francisco; have been in the business over fifteen years, and furnish help for all classes of labor.

There are about 8,000 men out of employment in this city at the present time; this time last year it was about 12,000.

Can not say how many Chinese are employed on the farms in this State, but I know there are more than there are white men.

The general appearance of men applying at my office for work is very good.

Ten thousand good white men can be furnished for farmers within sixty days, at a salary of $25 and $30 per month and board.

If every fruit grower would exercise one half of the patience with the white men which he has with Chinamen, the white men would be satisfactory to the grower.

One white man will do as much work on a farm as two Chinamen. This is from information.

I think that if all Chinese on farms were displaced, that their places can be filled within sixty days.

If there are not enough of white men in one State, they can be easily obtained; and if the fruit growers are earnest in this matter, skilled men from France and other European countries can be brought here in very short order.

Give a white man good food and accommodations, treat him kind, pay him respectable wages; then, within six months, enough of immigrants would come here and deal a deadly blow to the Chinese in this State, and the whole question of white men taking the places of the Chinese in the fruit orchards and vineyards can be practically settled within less than one year.

If the French, German, and Danes would be brought here and treated by the farmers and fruit growers as the Chinese are, enough of skilled men would come at $20 a month and board, to fill the Chinese places.

J. P. Johnson.

Called and sworn, testified as follows:

I keep an employment office in this city, and furnish Chinese labor and help exclusively.

Have never estimated how many Chinese are employed on farms, but about seven eighths of the help on farms are Chinese.

The Chinese receive about $20 a month and board themselves, on farms, in this State.

These wages may be a little lower, as there are a great deal more Chinamen in the country than in the city.

They are industrious, good, and honest as the white men, and can be utilized on the farm better than a white man.

The domestic accommodations on the farms in California, are so arranged and fixed for the convenience of the Chinese, that they must be employed during the fruit harvest this year, unless great radical changes are made.

The Chinese also have an advantage over the white men, in their farm experience, and at least seven eighths of the labor in the vineyards and orchards is done by the Chinese.

It is impracticable to displace Chinese, as enough white men could not be had to take their places, as they must be experienced. It will take three years to replace the Chinese with white men.

The agricultural counties that are now applying for Chinese for the farms—all are asking for the help at low wages, and experienced in the business.

The orchard men of Vacaville and St. Helena are acting in self-defense in their own interest.

I am in favor of an absolute restriction against the Chinese.

I do not think that white men will work for $1 25, even with board.

Good treatment and accommodations at the hands of the farmers will better the condition of the white wage-worker.

It is a farmer's unintentional neglect that they have not better treatment and comfortable quarters for the white men.

The sanitary condition of the Chinese is good and clean, and the habits of life are uniformly decent, and they are docile in character and manner.

Vineyardists and orchardists employ, and always ask for Chinese laborers.

Even when a vineyardist, orchardist, or, in fact, any person who employs white men, he absolutely refuses to advance the necessary fare for a white man, in order for him to get to the place of work, but in all cases the fare of the Chinese is advanced by the employer. The reason for this difference I cannot explain, as I do not know.

The Chinese can be displaced by white men on farms and vineyards within about three years, but they cannot be displaced in six months or one year.

W. D. Ewer.

Called and sworn, testified as follows:

I keep a white employment office in this city.

There are between 3,000 and 5,000 white men in this city out of employment who can be utilized on the farms in this State, at the average wages of from $20 to $30 a month and board.

The farm work heretofore, and now, has principally been done by the Chinese; at least seven eighths of the men on the farms are Chinese.

Within sixty or ninety days, at least 10,000 white men could be furnished to take the places of the Chinese on the farms, and they would be good men, too.

The amount of wages and term of employment always is a factor with a white man, but the men I speak of can be had for the wages I have stated; the character of the men is good.

There are a great many good Eastern men, as well as French, Germans, and Swiss coming into our State every day, and they are all of a good class.

All applicants at my office for employment are men who desire farm work, in order to get familiar with and learn the agricultural pursuits.

Good treatment and comfortable accommodations for the wage-worker will better their condition on the farm.

Robert T. Ward.

Called and sworn, testified as follows:

I am employment office agent, for white people, in San Francisco.

There is about 7,000 men looking for work, out of employment, in this city.

They are the best looking class of men that has ever applied for employment in this city.

There are not so many men out of employment now as there was this time last year.

The class of men seeking employment now are mostly agricultural men, wanting to go on the farms, in the grain fields, orchards, and vineyards.

The average wages for farm white men are $25 a month and board.

The Chinese predominate on the farms, but to what extent I cannot say.

In my opinion, the places of all the Chinese on the farms can be filled within sixty days with good white men.

If the farmer would treat the white man good—give him good food and comfortable quarters—the condition of the white wage-worker would be much better than at the present time.

On the fifth day of April, 1886, I mailed a circular letter to each of the County Clerks of the counties of California, of which the following is a copy, viz.:

Office of the California State Bureau of Labor Statistics,
San Francisco, April 5, 1886.

County Clerk —— County, Cal.:

Dear Sir: We here respectfully address to you a few questions, which we have been called upon to answer for the State Horticultural Society, and the State in general.

We sincerely hope that you will kindly assist us, to the extent of giving us such information concerning your county which you may have in your possession, or if you will estimate the same, as nearly as you can.

1. How many Chinese are there in your county?
2. How many of them are engaged in the pursuit of agriculture and farming?
3. How many of them in vineyards, fruit and hop raising, and picking?
4. Is there sufficient white labor in your county to replace all the Chinese employed in your county?
5. How long would it take, in your estimation, to fill all their places, if all the Chinese in your county were discharged?
6. In such an event, how many white men would it necessitate bringing to your county?

By answering the above questions, at your earliest convenience, you will confer a great favor upon—

Yours, very respectfully,

JOHN S. ENOS,
Commissioner.

O. ALBERT BERNARD.
Deputy Commissioner.

On the fifteenth day of April, 1886, I addressed a similar letter to each of the following gentlemen, they being among the largest vineyardists and orchardists in the State, viz.:

Hon. L. W. Buck.
Hon. John W. Bidwell.
Hon. L. J. Rose.
Hon. H. W. Crabb.
Hon. Wm. Johnston.
Hon. Wm. T. Coleman.
Hon. W. M. Boggs.
Hon. F. C. DeLong.
Hon. J. McM. Shafter.
Hon. Jas. T. Fulton.
Hon. A. F. Coronel.
Hon. H. M. La Rue.
Hon. Jesse D. Carr.
Hon. H. C. Wilson.
Hon. Chas. F. Reed.
Dr. Ed. Kimball.

On the twelfth day of April, 1886, I addressed a circular letter to each of the County Assessors of the following counties in the State, said counties being the principal fruit-growing counties, viz.:

Alameda.
Butte.
Colusa.
Contra Costa.
El Dorado.
Fresno.
Los Angeles.
Marin.
Merced.
Monterey.
Napa.
Placer.
Sacramento.
San Joaquin.
San Mateo.
Santa Clara.
Santa Cruz.
Solano.
Sonoma.
Yolo.

The following is a copy of said letter, viz.:

Office of the State Bureau of Labor Statistics,
San Francisco, April 12, 1886.

Dear Sir: The State Horticultural Society has addressed a communication to me, requesting that information be furnished at the next meeting of the society, to be held on the thirtieth instant, in this city.

The information sought is whether the Chinese labor, now and hereafter employed in the vineyards and orchards in the State, can be supplanted by white labor during the fruit harvest of 1886.

Please be kind enough to give me such information as you have, by answering the following questions, viz.:

1. How many Chinese are in your county?
2. How many are domestics and servants?
3. How many labor in vineyards, orchards, and hopyards?
4. How many labor in agricultural pursuits, other than those mentioned in question 3?
5. Is there sufficient white labor in your county to replace the Chinese employed in the vineyards and orchards of your county?
6. If not, how many white laborers will be required to fill their places?
7. What time will be required to replace the Chinese with whites?
8. In your opinion, how many Chinese are employed in the vineyards and orchards in this State?
9. How does the labor of white men and that of Chinese in vineyards and orchards compare, as to quality and quantity?

An immediate answer is requested in order to furnish an early and complete statement to the society, in the interest of two of the greatest industries of our State, as well as in the interest of white labor.

Respectfully,

JOHN S. ENOS,
Commissioner of the State Bureau of Labor Statistics of California.

For the purpose of comparison, and showing the various rates of wages and salaries in the American and European countries, I submit tabulated statements of the same, as follows:

Statement showing the Average Monthly Rate of Wages of Farm Labor, without Board, in Employment by the Season or Year.

	1882.	1879.	1875.	1869.	1866.
Eastern States	$26 61	$20 21	$28 96	$32 08	$33 30
Middle States	22 24	19 69	26 02	28 02	30 07
Southern States	15 30	13 31	16 22	17 21	16 00
Western States	23 63	20 38	23 30	27 01	28 91
California	38 25	41 00	44 50	46 38	35 75

Approximate Percentages of Increase and Decrease of Sections.

	Eastern.	Middle.	Western.	Southern.
Decrease from 1866 to 1879	39	35	30	14
Increase from 1879 to 1882	24	12	14	13

Statement showing the Average Monthly Rate of Wages, by the Year, for the years respectively named, of Farm Labor, with and without Board.

States.	1882.		1879.		1875.		1869.		1866.	
	Without Board.	With Board.	Without Board.	With Board.	Without Board.	With Board.	Without Board.	With Board.	Without Board.	With Board.
Maine	$24 75	$16 15	$18 25	$11 08	$25 40	$15 94	$26 25	$16 50	$27 00	$17 44
New Hampshire	25 25	16 72	19 75	12 30	28 57	18 25	36 32	26 16	32 74	22 48
Vermont	23 37	16 00	19 00	11 50	29 67	19 37	32 40	21 40	32 84	21 00
Massachusetts	30 66	18 25	25 00	15 33	31 87	20 25	35 95	22 16	38 94	22 26
Rhode Island	27 75	17 00	23 00	13 25	30 00	19 00	32 25	20 00	34 40	20 50
Connecticut	27 90	17 37	23 29	14 23	28 25	18 50	33 00	20 75	34 25	21 54
New York	23 63	15 36	20 61	13 19	27 14	17 18	29 28	18 64	29 57	19 32
New Jersey	24 25	14 20	20 22	11 53	30 71	16 78	32 11	19 02	32 27	18 98
Pennsylvania	22 88	14 21	19 92	11 46	25 89	16 10	28 68	18 05	29 91	18 84
Delaware	18 20	12 50	17 00	9 50	20 33	11 67	22 00	13 00	24 93	13 25
Maryland	16 34	9 89	14 00	8 95	20 02	11 42	21 55	12 00	20 36	12 76
Virginia	13 96	9 17	11 00	7 66	14 84	9 21	15 28	9 65	14 82	9 36
North Carolina	12 86	8 80	11 19	7 66	13 46	8 82	12 76	7 91	13 46	8 15
South Carolina	12 10	8 10	10 25	6 66	12 84	8 19	11 54	7 34	12 00	7 66
Georgia	12 86	8 70	10 73	7 38	14 40	8 79	14 70	9 70	15 51	9 67
Florida	16 64	10 20	13 80	8 73	15 50	10 75	16 10	10 91	18 00	12 12
Alabama	13 50	9 09	12 20	8 30	13 00	9 40	15 19	10 52	13 40	9 80
Mississippi	15 10	10 09	13 31	9 28	16 40	11 25	17 11	11 21	16 72	11 58
Louisiana	18 20	12 69	16 40	11 27	18 40	12 20	21 37	12 62	20 50	12 42
Texas	20 20	14 03	18 27	11 49	19 50	13 37	18 83	13 21	19 00	12 72
Arkansas	18 50	12 25	17 12	11 31	20 50	13 00	25 25	16 60	24 21	15 80
Tennessee	13 75	9 49	12 73	8 69	15 20	10 00	16 80	11 00	19 00	12 58
West Virginia	19 16	12 46	16 98	10 94	20 75	13 10	21 39	13 87	25 35	16 47
Kentucky	18 20	11 75	15 17	10 00	18 12	12 00	18 84	12 57	20 23	13 65
Ohio	24 55	16 30	20 72	13 34	24 05	16 33	26 35	16 74	28 46	18 96
Michigan	25 76	17 27	22 88	14 64	28 22	18 46	31 01	20 03	31 26	20 48
Indiana	23 14	15 63	20 20	12 76	27 20	16 14	25 42	17 03	27 71	18 72
Illinois	23 91	17 14	20 61	13 10	25 20	16 87	27 32	17 69	28 54	18 72
Wisconsin	26 21	17 90	20 07	13 81	25 50	16 45	30 08	18 47	30 84	19 87
Minnesota	26 36	17 75	24 55	15 62	26 16	16 36	28 61	17 94	31 65	21 10
Iowa	26 21	17 95	22 09	13 90	24 35	16 11	28 39	17 87	28 34	18 87
Missouri	22 39	13 95	17 59	11 84	19 40	13 15	24 47	16 38	26 75	18 08
Kansas	23 85	15 87	20 67	13 28	23 20	14 65	28 96	18 38	31 03	19 81
Nebraska	24 45	16 20	23 04	14 86	24 00	14 75	33 25	19 18	38 37	24 64
California	38 25	23 45	41 00	26 27	44 50	28 60	46 38	28 69	45 71	30 35
Oregon	33 50	24 75	35 45	23 86	38 25	25 67	*	*	35 75	22 53
Colorado	36 50	27 08	35 00	20 00	38 50	21 14	*	*	67 50	42 12

* No statistics.

Statement showing the Rate of Wages of Agricultural Labor per Day in Harvest, with and without Board.

STATES.	1882.		1879.		1875.		1869.		1866.	
	Without Board.	With Board.	Without Board.	With Board.	Without Board.	With Board.	Without Board.	With Board.	Without Board.	With Board.
Maine	$1 52	$1 22	$1 42	$1 09	$1 99	$1 49	$2 17	$1 65	$2 02	$1 56
New Hampshire	1 71	1 33	1 25	96	2 06	1 64	2 37	1 95	1 98	1 52
Vermont	1 75	1 35	1 29	97	2 28	1 85	2 46	2 00	2 32	1 85
Massachusetts	1 75	1 35	1 50	1 00	1 90	1 50	2 37	1 95	2 41	1 92
Rhode Island	1 60	1 30	1 30	95	2 00	1 50	2 37	1 75	2 23	1 71
Connecticut	1 65	1 33	1 60	1 25	2 06	1 53	2 40	1 90	2 43	1 90
New York	1 89	1 47	1 53	1 18	2 25	1 75	2 53	1 99	2 41	1 93
New Jersey	2 09	1 74	1 55	1 30	2 56	2 03	2 63	2 09	2 68	2 38
Pennsylvania	1 73	1 30	1 33	99	2 01	1 51	2 23	1 75	2 32	1 80
Delaware	1 60	1 25	1 37	1 00	1 83	1 41	1 87	1 50	2 09	1 62
Maryland	1 52	1 15	1 43	1 12	1 81	1 34	2 16	1 67	2 00	1 68
Virginia	1 27	99	1 16	96	1 48	1 21	1 48	1 13	1 46	1 21
North Carolina	1 20	85	99	76	1 17	1 00	1 37	1 04	1 53	1 17
South Carolina	1 08	87	89	68	1 17	1 00	1 15	90	1 25	93
Georgia	1 10	80	98	61	1 29	99	1 24	90	1 48	1 06
Florida	1 12	80	1 02	73	1 00	72	1 25	78	1 12	83
Alabama	1 05	80	96	77	1 40	1 15	1 24	95	1 27	1 04
Mississippi	1 23	95	1 00	85	1 40	1 00	1 56	1 27	1 65	1 14
Louisiana	1 10	85	1 03	77	1 30	1 05	1 54	1 13	1 66	1 20
Texas	1 39	1 08	1 30	94	1 52	1 20	1 58	1 26	1 65	1 32
Arkansas	1 39	1 02	1 38	1 08	1 50	1 25	1 67	1 40	2 07	1 52
Tennessee	1 30	1 00	1 28	98	1 62	1 20	2 10	1 59	2 01	1 54
West Virginia	1 30	1 00	1 26	95	1 55	1 20	1 78	1 29	1 78	1 31
Kentucky	1 54	1 18	1 49	1 15	1 79	1 46	1 83	1 38	2 10	1 70
Ohio	1 79	1 40	1 51	1 17	2 05	1 60	2 15	1 72	2 20	1 73
Michigan	2 13	1 76	2 02	1 55	2 50	2 00	2 76	2 25	2 62	2 14
Indiana	1 89	1 58	1 68	1 28	2 20	1 75	2 16	1 77	2 23	1 76
Illinois	1 99	1 54	1 52	1 18	2 20	1 83	2 34	1 94	2 41	1 91
Wisconsin	2 50	2 10	2 11	1 70	2 40	1 92	2 45	1 96	2 68	2 15
Minnesota	2 61	2 16	2 63	2 25	2 82	2 30	2 90	2 36	2 68	2 27
Iowa	2 25	1 81	1 66	1 57	2 57	2 10	2 85	2 24	2 38	1 88
Missouri	1 59	1 23	1 47	1 17	1 71	1 43	2 30	1 84	2 15	1 72
Kansas	1 70	1 35	1 70	1 32	1 86	1 46	2 06	1 63	2 31	1 82
Nebraska	1 95	1 37	2 17	1 66	2 40	1 98	2 41	2 00	2 65	2 15
California	2 30	1 86	2 27	1 76	2 50	2 00	2 83	2 04	2 56	2 06
Oregon	1 92	1 50	2 02	1 54	2 11	1 72	*	*	2 40	1 80
Colorado	2 21	1 80	2 08	1 55	2 33	1 50	*	*	4 17	2 87

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* No statistics.

Statement showing the Rate of Wages of Agricultural Labor, with and without Board, in European Countries.

Country and Locality.	Per Year, with Board.	Per Year, without Board.	Per Month, with Board.	Per Month, without Board.	Per Week, with Board.	Per Week, without Board.	Per Week, with a Cottage, but no Board.	Per Day, with Board, during Harvest.	Per Day, with Two Meals.	Per Day, without Board.
Germany—Alsace-Lorraine	$67 30							$0 50		$0 80
Saxony	44 26							34		
Duchy of Oldenburg	31 25							64		
Stuttgart District	57 12				$1 90					
Barmen District	49 98								$0 20	
Thuringia									20	
Crefeld District						$3 14				
Silesia					1 45					
England—Gloucestershire					3 19					
Somersetshire					3 65					
Wiltshire					2 79					
Dorcetshire					2 79					
Hull	72 00						$3 57			
York	128 00									
Liverpool District						4 01				
London District						4 05				
Scotland—Dundee	143 37			$24 20				67		
Lothairs, or East		$240 00								
Southwest		227 40						85		
Perthshire		227 40						85		
Aberdeen		224 92						90		
Ireland—Cork	68 13	116 80								
France—Rheims			$7 23							
Gironde	75 00		6 25					30		51
Marseilles										57
Rouen			4 33							
Belgium—Liege			2 37					27		
Brabant			2 37					27		
Hainault			2 39					27		
Hollard—North Holland	60 00	187 00								1 00
South Holland	85 00									70
Switzerland	82 00									
Italy					4 00					
Austria					2 10	3 50				
Denmark	65 00									
Russia	40 80									49

STATEMENT RELATIVE TO THE CHINESE OF CALIFORNIA.

Showing their Labor Relations with Agricultural Pursuits, as per Returns from County Clerks and Assessors.

COUNTIES.	Number of Chinese in the County.	Number that are Domestics and Servants.	Number in Orchards, Vineyards, and Hopyards.	Number in other Agricultural Pursuits.	Is there sufficient White Labor to replace Chinese in all Agricultural Pursuits?	If there is not sufficient White Labor in the County, how many Whites will be required?	What Time will be required to replace the Chinese with Whites?	How many Chinese are there in the State?	How does the Labor of the Chinese and Whites compare as to Quality and Quantity?
Alameda	No returns.								
Alpine	6	6	None.	None.	Yes.	No time.	No time.	Don't know.	No answer.
Amador	2,000	No answer.	No answer.	No answer.	Yes.	No time.	No time.	Don't know.	White is best.
Butte	3,000	No answer.	100	150	Yes.		Ninety days.	No answer.	No answer.
Calaveras	Don't know.	No answer.	Don't know.	Don't know.	Yes.			Don't know.	No answer.
Colusa	1,500	500	None.	800	No answer.	No answer.	No answer.	No answer.	No answer.
Contra Costa	500	250	75	125	Yes.		Ten days.	Don't know.	Don't know.
Del Norte	No returns.								
El Dorado	400		200	15	Yes.		No time.	Don't know.	White is best.
Fresno	No answer.								
Humboldt	30	None.	None.	None.	Yes.	None.	Ten minutes.	Don't know.	White is best.
Inyo	50	50	None.	None.	Yes.		No time.	Don't know.	No answer.
Kern	No returns.								
Lake	No returns.								
Lassen	50	50	None.	None.	Yes.			Don't know.	No answer.
Los Angeles	6,000	200	2,000	No answer.	Yes.		No answer.	No answer.	No answer.
Marin	325	25	25	50	Yes.			Don't know.	Don't know.
Mariposa	600	Don't know.	Very few.	20	Yes.		No time.	No answer.	No answer.
Mendocino	1,000	50	4,000	100	No.		Don't know.	Don't know.	No answer.
Merced	No returns.								
Modoc	60	No answer.	None.	None.	Yes.	None.	No time.	Don't know.	No answer.
Mono	No returns.								
Monterey	500	40	None.	50	Yes.		Don't know.	Don't know.	Don't know.
Napa	650	430	200	Don't know.	Yes.		Six months.	Don't know.	White is best.
Nevada	No returns.								
Placer	No returns.								
Plumas	500	No answer.	None.	50	Yes.	None.	Short time.	Don't know.	White is best.
Sacramento	3,000	400	1,500	200	Don't know.	Don't know.	Don't know.	Don't know.	Skilled white best.
San Benito	No returns.								
San Bernardino	500	100	100	Don't know.	Yes.	None.	No time.	Don't know.	White is best.
San Diego	No returns.								
San Francisco	No returns.								

STATEMENT RELATING TO THE CHINESE OF CALIFORNIA—Continued.

COUNTIES.	Number of Chinese in the County.	Number that are Domestics and Servants.	Number in Orchards, Vineyards, and Hopyards.	Number in other Agricultural Pursuits.	Is there sufficient White Labor to replace Chinese in all Agricultural Pursuits?	If there is not sufficient White Labor in the County, how many Whites will be required?	What Time will be required to replace the Chinese with Whites?	How many Chinese are there in the State?	How does the Labor of the Chinese and Whites compare as to Quality and Quantity?
San Joaquin	2,500	400	300	600	Yes.		Conditional.	Don't know.	Conditional.
San Luis Obispo	150	20	None.	20	Yes.		No time.	No answer.	No answer.
San Mateo	No returns.								
Santa Barbara	500	No answer.	None.	100	Think not.	Don't know.	Can't tell.	No answer.	No answer.
Santa Clara	2,500	600	1,000	600	Don't know.	1,000	Don't know.	Don't know.	White is best.
Santa Cruz	No returns.								
Shasta	No returns.								
Sierra	No returns.								
Siskiyou	1,800	Don't know.	None.	50	Yes.	None.	No answer.	No answer.	No answer.
Solano	No returns.								
Sonoma	1,500	300	200	None.	Yes.		None.	Don't know.	One white good as three Chinese.
Stanislaus	No returns.								
Sutter	550	No answer.	100	No answer.	Yes.			Don't know.	No answer.
Tehama	No returns.								
Trinity	No returns.								
Tulare	1,000	No answer.	125	125	No.	1,000	No answer.	Don't know.	No answer.
Tuolumne	500	No answer.	None.	10	Yes.		No answer.	No answer.	No answer.
Ventura	300	No answer.	50	150	No.	300	One year.	No answer.	No answer.
Yolo	400	100	2,000	None.	No.	2,000	Three years.	Don't know.	Chinese is best.
Yuba	2,000	No answer.	500	None.	No.	400	One year.	Don't know.	No answer.

CHINESE POPULATION.

Compiled from Returns made by County Assessors and County Clerks.

COUNTY.	Population.	COUNTY.	Population.
Alameda	8,000	San Bernardino	371
Alpine	125	San Diego	275
Amador	2,000	San Francisco	43,000
Butte	3,000	San Joaquin	2,500
Calaveras*	1,037	San Luis Obispo	196
Colusa	1,500	San Mateo	250
Contra Costa	500	Santa Barbara	500
Del Norte	300	Santa Clara	2,950
El Dorado	400	Santa Cruz	450
Fresno*	753	Shasta*	1,335
Humboldt	250	Sierra	400
Inyo	50	Siskiyou	1,458
Kern*	702	Solano*	995
Lake*	469	Sonoma	1,500
Lassen	50	Stanislaus	700
Los Angeles	5,000	Sutter	550
Marin	350	Tehama*	774
Mariposa	600	Trinity	400
Mendocino	1,000	Tulare	1,000
Merced	550	Tuolumne	500
Modoc	60	Ventura	300
Mono*	363	Yolo	400
Monterey	500	Yuba	2,000
Napa	650		
Nevada	1,800	Total	90,022
Placer*	2,190	Total from Tenth Census	8,618
Plumas	500		
Sacramento	3,000	Grand total	98,640
San Benito	87		

* No returns—Tenth Census.

The cultivation of the vine and fruit tree has become one of the leading industries of our State.

The area devoted to the growth of cereal products appears to have reached its limits, while that adapted for vine culture and fruit growing is constantly extending; the soil of the State and its climatic conditions being particularly favorable to the growth of those industries.

From personal observation and researches, California has made great progress, in experimenting with grapes, in the past five years. More has been done in that direction during that time than in all times before.

The most useful man in a community is he who produces something.

The farmer is a large and, perhaps, the chief producer; and the man who produces the most on a given number of acres of land, with the least amount of labor or money, is the best farmer. Of course this requires an enlightened knowledge of the farming business.

A farmer must work. Show me a man who does not work, and I will show you a man you ought to avoid.

Farming is not learned in theory alone; it is a practical business, requiring practical knowledge of a larger number of subjects than any other pursuit.

The prevailing opinion is that anybody can be a farmer.

A boy that is unfit for anything else is turned loose upon a farm, with the belief that farming is born in man, and that knowledge of farming comes with his first breath. Of course, they no not hurt anything, they do no harm, they fail at it, and then we hear the old cry, that farming does not pay. All because it is forgotten that successful farming depends more on the person than on the farmer.

The grape crop of our State will be increased more than double in the next three years, and will tax the talent, energies, and resources of all who are interested in it to prevent even temporary commercial derangements.

It is my belief that the first duty of the farmers is to sustain and protect the industries of this country, and that they should not enter into bargains or contracts which shall in any way endanger the rights and privileges of the white working classes.

With respect to this matter, concerning the fruit industry of this country, it may be claimed that farmers appear to be disposed to encourage the employment of cheap Chinese labor. With such Chinese labor, and organized capital, the white people of the country are having their rights, privileges, and means of earning a livelihood destroyed. They have a right to demand of the farmers that they shall not sacrifice them for the Chinese coolie labor.

Of course, it can be said that the farmers, or a majority of them, have no feeling in favor of the Chinese, and that it is a detriment to the State of California that they are allowed to come, and that the sympathies of the farmers are with the white men, but, from the evidence of such farmers, the trouble is that good white labor is very hard to obtain and very difficult to keep any length of time.

The reason for this is that a good, prudent, industrious, white, temperate man can do better for himself in this country than to work for others, and that the other class does not care to labor continuously, but only long enough to get a little money to move to some other portion of the State.

This state of affairs compels the farmers to employ such labor as they can get, such as Indians, native Californians, and Chinese, and that upon this supply their family help, fruit growing, picking and packing, and wine making has been built, grown, and arranged, and that any immediate disarrangement would work a great hardship, and perhaps ruin to those industries.

But by a gradual withdrawing of the Chinese laborer, from year to year, their places will be filled by white laborers, educated to the farmers' needs.

As to whether the supply of white labor now available is skilled, or sufficiently capable of performing the work, I have no facts, save those which are shown by the evidence of the employment office agents, and by the returns of the various County Clerks and Assessors, as per statement herewith presented.

The testimony of the employment office agents is herewith presented to you, and made a part of this statement.

From all the evidence which I have heard and read, I can safely state that there will be needed by all of the farmers of our State, during the fruit harvest this year, more than 30,000 laborers, who must be skilled in the farmer's work.

These employment office agents say that they can furnish about 7,500 white skilled laborers for the farmers; or in other words, in their opinion, there are that many unemployed white men in the City and County of San Francisco.

This is about one quarter of the number required by the farmers; then arises the question, from whence will the remaining three quarters, over 20,000 men, be procured.

Can they be brought from the Eastern States, or any of the European countries? If not, then in order to protect his property, and save himself from an irreparable loss and ruin, he must employ Chinese labor to do the work during the fruit harvest for this year at least.

To show the magnitude of the industry, I will give some figures, for the purpose of estimating the amount of work required.

The following figures show the area of grapevines planted in the State:

Prior to 1881	60,000 acres.
1881	10,000 acres.
1882	35,000 acres.
1883	35,000 acres.
1884	30,000 acres.
1885	70,000 acres.
Total	240,000 acres.

The following figures show the vintage or wine crop of our State during the same time:

1881	12,000,000 gallons.
1882	9,000,000 gallons.
1883	8,000,000 gallons.
1884	14,000,000 gallons.
1885	15,000,000 gallons.
1886 (estimated)	20,000,000 gallons.
Total	78,000,000 gallons.

Brandy is included in these figures.

From the foregoing figures, it will be seen that the wine industry of the State is rapidly increasing and advancing.

The total value of the wine crop of France for 1885 was 753,839,500 gallons, or 164,962,938 gallons less than in 1884, and 361,167,078 gallons below the average of the last ten years, being a falling off of over 32 per cent.

The area cultivated for the vine in France, in 1885, was 4,918,738 acres, or 1,752,771 acres less than in 1881—a decrease of over 26 per cent.

During the year 1885 the agricultural products of our State, in the line of dried fruits, were as follows, viz.:

Raisins	9,500,000 pounds.
Prunes	1,550,000 pounds.
Apples	1,823,000 pounds.
Peaches	1,900,000 pounds.
Plums	1,139,000 pounds.
Pears	100,000 pounds.
Grapes	150,000 pounds.
Apricots	650,000 pounds.
Nectarines	80,000 pounds.
Figs	100,000 pounds.
Walnuts	1,250,000 pounds.
Peanuts	518,000 pounds.
Almonds	1,050,000 pounds.
Honey, in comb	750,000 pounds.
Honey, extracted	1,500,000 pounds.
Beeswax	60,000 pounds.

All of a total value of $3,500,000.

This product of dried fruit of our State, for the year 1885, required 110,000,000 pounds of green fruit, which is equal to 5,500 freight cars of 20,000 pounds each.

The raisin crop of the State for the year 1884 was 3,500,000 pounds.

The large increase last year in this branch, over the crop of 1884, indicates the rapid advance California is making in this industry.

One great fault which was found with the raisins of the crop of 1884 was the packing and grading generally.

From all the information furnished me, the packing and grading this last year was much better, and I believe that another season will show further improvement.

Raisins must be very carefully graded, packed, and cured.

The trade in our California raisins is constantly extending throughout the United States.

These facts and figures alone show the necessity of not making an immediate change in the skilled help and labor on the farms, orchards, and vineyards during this coming fruit harvest.

All kinds of dried fruits must be skillfully and carefully treated, especially in drying, curing, and bleaching, besides in grading, and in order to do this, skilled labor of continuous experience must be required, and in the absence of skilled white labor the farmers are compelled to use Chinese skilled labor.

I have no figures to show the amount of home consumption, or the amount shipped in the line of green fruit; therefore I will pass that with saying that skill is required in this branch in the picking, packing, and getting ready for transportation and market; that the picking is very arduous and tedious, especially in the berries and vine fruits, which require a continuous stooping posture, and it seems to be the unanimous opinion of the farmers with whom I have had intercourse and correspondence, that no white men can be had to do such kind of work, and even if they could be had, that they would very soon quit, for the reason that they can get work in the harvest field, which occurs at the same time, thereby requiring the farmer to employ the Chinese in the fruit harvest.

Another branch of the industry is the canning of fruits.

During the year 1885, the following California fruits were prepared and canned in the State:

Table fruits	387,200 cases.
Pie fruits	70,000 cases.
Asparagus	1,500 cases.
Tomatoes	72,000 cases.
Jams and jellies	35,000 cases.
Total	565,700 cases.

This canning business is a very peculiar one, requiring a technical knowledge, and unless the laborers have this technical knowledge a risk is run, and the cannery is liable to great and serious loss.

But from information, I am more than pleased to state that this industry is being rapidly filled with white help, and that Chinese are as rapidly being displaced with white labor, competent to perform the work required in the canneries.

And the money earned by this white labor is spent with our own people, which is not the case with Chinese, who do not spend 20 per cent of their earnings in this country, but send them to China, which amount to many millions of dollars annually, all being taken from the channels of trade and from the country.

For the purpose of showing the amount of trade between our country and China, I present the following facts and figures, gathered from actual statistics and reports.

Imports for one year ending June 30, 1885:

Merchandise free of duty	$12,050,768 00
Merchandise subject to duty	4,241,401 00
Total	$16,292,169 00
Gold and silver coin and bullion	1,529 00
Total	$16,293,698 00

Exports for one year ending June 30, 1885:

Domestic merchandise	$6,396,178 00
Foreign merchandise	332 00
Total	$6,396,510 00

From this statement it will be seen that the whole amount of merchandise imported to the United States during this period amounted to the sum of $16,293,698, of which amount only about one fourth, or $4,241,401, was subject to duty, the balance being on the free list, while the sum total of our exports to China on domestic commodities, during the same period of time, was $6,396,178; our total exports on foreign merchandise but $332, making the total exports $6,396,510.

Our City of San Francisco alone exported merchandise to all foreign countries, during the same period of time, six times the amount in value, than did all the cities in the United States, San Francisco included, export to China, her exports of merchandise during that year being $38,115,624.

Our export trade with China has not increased during the past fifteen years under the so called Burlingame Treaty.

Our total exports to China for the year ending June 30, 1885, were less by nearly $500,000 than they were seven years ago. In that year, ending June 30, 1878, they were $6,867,255, and our exports to China during the year ending June 30, 1885, were less by $1,968,036 than they were in 1881, and small as it is, less than double that when the treaty was ratified.

But not only so, it requires a drain of our gold and silver of nearly $10,000,000 annually to square our account with China, to say nothing of the immense drain of many millions sent out of the country through the operation of the Chinese.

It was proclaimed with a flourish of trumpets, when the treaty was consummated, that a new market for our surplus wheat was to be opened up to the producers of our country; that the rice-eating millions would at once become a bread-eating people.

But what was the result?

Eighteen years have passed away, and our annual total exports of breadstuffs to China, including wheat and flour, is of the value of less than $40,000, the exact amount for the year ending June 30, 1885 being $35,734.

And so with our provisions, comprising meats and dairy products, $35,977 in value is the sum of all they purchased from us in the last year.

In fact, I may except the two principal products of merchandise, cotton manufactures, the value of our exports of which to China during the past year was $3,400,339, or considerably over one half of all our exports to that country; and refined petroleum, amounting to $1,455,234; our export trade with China amounts to absolutely nothing, while from her free list she, through her importations, is permitted to enter into competition with our producers of hides and skins, chemicals, drugs, and dyes, manufactured rare woods, hair, and other importations.

But, again recurring to the immense drain of specie from our country involved in this trade, I submit the following statement, showing the value of the foreign trade with China, and our annual total exports of gold and silver during the past fifteen years.

During the past fifteen years we have sent to China, in gold and silver, to balance our account, $131,134,815.

In the four years and seven months ending July 31, 1879, we exported from San Francisco alone to China, specie to the amount of $49,848,918.

This immense sum of over $131,000,000 in gold and silver, is in small part the tax that has been levied on the white labor of the Pacific Coast and handed over to the Mongols of Asia.

But to this add not less than from $75,000 to $100,000 per day that is daily being absorbed by the laboring Chinese of the Pacific Coast, and only a very small fraction—less than 20 per cent, as I have already stated—of which finds its way back into American life and industries, and the balance of which, amounting to untold millions, is sent out of the country, and then some conception may be had of the enormously bad bargain this country struck with China when the Burlingame Treaty was made.

This statement of facts of our business relations is presented for the purpose of showing to the farmers of our State, and the California State Horticultural Society, and the capitalists of our State, the necessity of encouraging our white labor, not only for their own self-interest and preservation, but also for the interest of our own people and country.

In conclusion, I will state, that as nearly all the farmers of our State have largely invested, and in most instances all their means, in their business, and, therefore, look solely to success in that as a means of relief, and to fail in it will be ruinous, that in self-defense they feel that it is their bounden duty to protect themselves and their interests, by refusing to submit to any interference, by any man or set of men, in their business.

I know that the Chinese differ from us in habits, tastes, and moral principles, and I know that they are a race which cannot assimilate with us, and I know their presence among us to be an evil, and detrimental to the welfare of our people and institutions, and we should always give preference in employment to our own people.

I believe that Congress should abrogate the Burlingame Treaty, and enact such laws as will restrict, forever, immigration of Chinese to the United States.

I also believe that any attempt to drive out the Chinese, or accomplish any other object, by measures of violence or mob laws, or by any means other than laws enacted by the National or State Legislatures, which, by our Constitution, we have vested with the law-making power, tends to anarchy, and is subversive of the fundamental principles of our Government.

From all evidence before me and presented, I also believe that to drive out the Chinese at once from the State of California, with the approaching and exceedingly large grain harvest, and fruit crops to be gathered and dried and packed, our hops to be cultivated and picked, that the farmers, orchardists, and vineyardists will be deprived of a very large amount of labor which will be necessary for those purposes, and would, as a consequence, work great loss and hardship upon these industrial pursuits, upon which financial prosperity depends, and upon none would these hardships fall heavier than upon the poor of our own race, who depend upon their daily labor for toil and support.

As I stated before, I believe in the abrogation of the Burlingame Treaty.

When our people are assailed by an extraordinary evil, which brings into grave and imminent peril not only their best interests, but the most cherished institutions of our country, the time for temporizing has passed away, the more ordinary remedies must be put in the background, and the amenities which, under other circumstances, should be observed towards foreign powers and their subjects, must, upon the principle of self-preservation, give way to such heroic and aggressive measures as the necessities of the case render essential.

In the case of the Chinese, such treatment seems necessary to the vindication of the most sacred rights and privileges of our people, and the maintenance of our civilization and the preservation of the domestic peace of the Republic.

Such an evil, a vice more terrible in its tendencies, more degenerating in its influences, is to-day not merely paralyzing the rights of the laboring classes—not only absolutely destroying the interests of American labor in our beautiful State—not only fastening its fangs into the very vitals of the moral and physical being of our community—but more than all this, absolutely destroying the public peace, creating internal dissensions and strife, and bringing into the most imminent peril the domestic tranquillity of our people, the Christian civilization of the age, and the general welfare of our nationality.

I know from such an evil are our people of this Pacific Coast suffering to-day through the presence in their midst of large numbers of an unclean, non-assimilating, and pagan race.

To such an infliction, national in its character, malignant and devilish in its tendencies, are our people now subjected.

Impending over them, and gradually but surely extending its dominion, it imperils the rights of labor, of prosperity, of peace, and of life itself.

To meet and successfully grapple with, and finally subdue and eradicate from our land, this scourge, will require some heroic treatment, some vigorous remedy, some emphatic measure, some firmer, more decided, and aggressive governmental step, than has ever yet been taken by Congress; that is to say, an absolute abrogation of this so called Burlingame Treaty; and then the greatest wish of our people will be gratified, which is to give the labor of our State to the white people, thereby not limiting or decreasing their opportunities to work, by destroying any one of the industries of our State.

Finally, my opinion is, that in all kinds of business there is but one safe way, and that is to encourage white labor by every moral means, but to coerce no one.

Respectfully yours, etc.,

JOHN SUMMERFIELD ENOS,
Commissioner of the Bureau of Labor Statistics.

Correspondence received by the Bureau of Labor Statistics from orchardists, vineyardists, and employment office agents, in the State of California, relative to the displacement of Chinese during the fruit harvest of 1886, in connection with the foregoing report:

Napa, California, April 20, 1886.

Hon. John S. Enos, *Commissioner of Labor Bureau:*

Dear Sir: Yours of the fifteenth instant is at hand, propounding certain inquiries in regard to Chinese labor in this county. In reply to you I can only say that it is not in my power to answer the questions, as I have been attending to my duties as Inspector of Fruit Pests, and have simply directed my time and attention to certain localities, and have not paid any attention to the Chinese question, other than I observe a few employed by the orchardists where I have been, and they appeared to do their work well. Some were considered as expert pruners, and others were employed in washing and disinfecting trees, and were more careful, as a rule, than white men; but as to numbers employed, or otherwise engaged, I have no statistical information at hand. I will hand your letter to our County Assessor, Mr. John Kean, who may be able to render you the information desired.

Yours, respectfully,

W. M. BOGGS,
Inspector of Fruit Pests.

SAN GABRIEL, April 22, 1886.

Mr. JOHN S. ENOS:

DEAR SIR: Am in receipt of yours of the fifteenth, and comply with pleasure to your request about information about the Chinese labor necessity. Can, however, only give you such information as comes under my own observation, my own personal knowledge growing out of my own affairs and my immediate neighbors; and as I am carrying on orange and grape growing extensively, my experience for that reason has some value. I will start out by saying that I have no feeling in favor of the Chinese; that it has been, in my view, a detriment to this State that they were allowed to come here; that my sympathies are all with the white race, and that it is ever a pleasure and a study to be a benefit to them; that I always pay them twenty-five per cent more for the same amount of work, and that at that difference of price I give them the preference for work. But the trouble is that good white labor is hard to obtain, and very difficult to keep any length of time. The reason for this is that the prudent, industrious, and temperate white man can do better working for himself in this new country than to work for others, whereas the other class does not care to labor continuously, and only long enough to get money for a spree or to rove to some other section of the State.

This state of facts has compelled us to employ such labor as we can get—Indians, native Californians, and Chinese—and upon this supply, our family help very largely, our fruit growing, our orange picking, our wine making, has been built and grown, and any violent disarrangement of this supply would work a great hardship, and often ruin, to these industries. By the gradual withdrawal of the Chinese laborer, as will take place by the Chinese Restriction Act, which withdrawal will be so gradual from year to year that their places will be filled by white laborers educated to our needs, that it will not be felt or work any hardship, and in twenty years there will scarcely be a Chinese left. Nor can it be shown that the white laborer is suffering to any alarming extent at present by the competition of Chinamen in our industries, for farm labor is better paid here than in any part of the United States; and if it had not been for the labor of the latter, fruit growing and the wine industry would not be where they are now; it would not have been possible; and their labor has, again, made a necessity for overseers and for skilled labor, so to speak, labor which a Chinaman cannot perform to advantage, which has made a demand for the more intelligent white man, growing out of this increased necessity and demand, which has made it possible to give higher wages for intelligence, and probably as many, or even more, white men are employed by the presence of Chinamen than would otherwise have been employed. I do not wish to say that this reasoning would hold good in cities in trades or manufacturing establishments, but with fruit growing and like industries, requiring in the country at times large numbers of men for uncertain periods, the Chinese are as yet a necessity, and a benefit for the time being. With no new arrivals, the Chinaman will go, and there is nothing dangerous to the white man for the present or future. Every man feels a warmth in his heart for his own people, and a difference in money will never cause him to turn away one of his own people if that difference is of such quantity that he can afford to pay it and not do material injury to himself. This feeling is inborn in every right thinking man, and with no more Chinese coming, may be relied on as taking care of every laborer in our State.

To undertake by boycotts or other violent expedients to drive away our necessary help, can only work harm by creating bitter feelings and animosities, which will estrange this kindly feeling; for it must be remembered that it means ruin to individuals who, by years of toil, have already, in this early time, made California that bright fruit land of the world which is attracting tourists and settlers from every part of the world.

The number of Chinese in the county, how many are employed in families, vineyards, etc., or how many whites are required to fill their places, I can't give any reliable data about. That now we could not carry on our industries, is certain; and that there is already a movement on foot to supply a present want of more laborers by sending to the Southern States for negroes, is too true. Whether they will be more of an advantage to California, may be a debatable subject. But you may take it as a fact, that it is not the industrious farmer or fruit grower, the man that improves our State, that is finding any fault or instituting boycotts, or interfering with the rights of his neighbor. He believes that the Chinese are an evil to be got rid of in a gradual way, and without any violence to any industry. He feels that if the laws are strictly and justly enforced, that then this is accomplished. He had nothing to do with their coming, but finding them here, has used them to his profit, as others were doing; and having created values, having made homes and built up industries which are an ornament and a benefit to every individual in the State, he asks to be protected in his rights, to enable him to feed his family, to pay his debts, and to feed the families of many other laborers besides the Chinese; and he will be only too glad to do without them as fast as circumstances will permit.

Respectfully yours,

L. J. ROSE.

SUNNY SLOPE.

MONTEREY COUNTY, CALIFORNIA, April 23, 1886.

J. D. CARR:

DEAR SIR: Your Mr. Burk handed me John S. Enos' letter of inquiry relative to Chinese employment.

I am not prepared to give more than approximate answers to some of the questions. There are about twelve hundred and fifty (1,250) Chinese in Monterey County, employed as follows: In the fisheries of Monterey Bay, 300; Southern Pacific Railroad employés, 350; grubbing and clearing land on the Salinas River, farming and gardening, 350; merchants, laundrymen, cooks, and servants, 250; total, 1,250. No Chinese employed in orchards, vineyards, or hopyards in the county. As to other questions in said Enos' letter, I am not prepared to answer, even approximately.

Yours, etc.,

W. P. L. WINHAM.

San Francisco, April 30, 1886.

H. P. Livermore, *President California Fruit Union:*

Dear Sir: As the question of supplanting Chinese labor with white labor is now, and has agitated the public mind to considerable extent, and as it appears to be a question of vital importance to the fruit grower in particular, I wish to bring before you for consideration a few facts or suggestions, believing relief can be had to the benefit of both employer and employés.

It cannot be denied that at the present time, should all the fruit growers in this State desire to employ white help, that there would not be enough to supply the demand at such wages as the growers would feel that they could pay. But, from the large number of white men at present out of employment in this State, a number of fruit growers could be supplied with good and efficient help at wages satisfactory to both employer and employés. At the present time, young men between the ages of eighteen and twenty-five are being employed on farms, at from $15 to $20 per month and board; and if it should become generally known that employment can be secured for such men, for at least six months in the year, I believe hundreds could be found to accept the work.

In looking up such men and offering them employment, the parties desiring to have full and faithful duty should bear in mind that the laboring class look upon good treatment from those employing them, and expect to be *well fed* and have comfortable quarters to sleep in when their day's work is done; very often a kind word will accomplish more than curses. Where good treatment can be assured, men can be found in plenty to fill the positions offered.

We are supplying, at present time, young Scandinavians, Germans, some Scotch and Americans, and find generally good reports from those who employ them.

Should the fruit growers wish to make a change, and employ white instead of Chinese, and should it be found that there was not enough in this city or State to supply the demand, it would be a very easy matter (considering the low rates of fare) to send to either Chicago or Kansas City, and secure the requisite number desired.

In case that it was decided to bring labor from those places, I believe a contract could be made, whereby they would agree to stay with the parties so employing for say from one to five years, at wages satisfactory to the fruit growers, say $200 to $225 per year. Their fare would have to be advanced, and they agree to repay the same in monthly amounts of one half of their wages. A contract of that kind would be binding upon them; otherwise they could be prosecuted for obtaining their fare or money under false pretenses.

Fruit growers and farmers, more or less, keep labor all the year through, and when that is the case less trouble will occur in procuring such labor.

The difficulty with old Californians, in taking such work, is that in former days their wages have been so much higher than at present, that they are restless and thinking that they can do better, and are thus troubled with never ending hope and never ceasing disappointment.

If a few of the fruit growers would make the attempt to secure white labor, the question as to getting them, either in San Francisco or the State at large, would soon be demonstrated. A great many men that would be willing to accept such positions are naturally averse to starting out into the country to *hunt* work, believing that they would be classed as tramps, etc., but would accept the work if orders were sent to us or some other responsible firm.

While I do not wish to be egotistical, I believe, outside of one other employment office beside my own, that agents do not exercise the proper care in selecting the help that they send off into the country. It is my policy to select the best men that can be found to fill the position, as by so doing I create and retain confidence and custom of those using my agency for the securing of help. As to our care in so doing, I can refer to employers who have dealt with me for years, and I would like to make the effort for the fruit growers of this State. I would not be averse to going East, and selecting any number of men required, and as the rates are now so low, it seems to be the proper time to move in the matter.

This question is susceptible of considerable discussion, and arguments that would apply to pick and shovel men or skilled mechanics, servants, etc., will not altogether apply to the class of labor desired by the fruit growers.

Should you desire to talk with me further regarding this matter, or upon the subject of labor, I am at your service.

Yours, respectfully,

J. F. CROSETT,
628 Sacramento Street.

San Francisco, April 30, 1886.

John S. Enos, *Commissioner State Bureau of Labor Statistics:*

In answer to your inquiry of how many Chinese are employed on vineyards, orchards, and farms in California, we believe 50,000 to 60,000.

Can we replace them in time for the harvest of 1886 with skilled white labor? We do not know, nor have we the means of finding out without having the order for the men. But we believe there are in our State now 7,000 to 10,000 unemployed men, and we probably could draw a large number from other States and Territories. Then there are our boys and girls, who could assist in gathering berries and hops.

But we do know that we can furnish, in one year, emigrants direct from Europe, say south of Germany, Switzerland, France, and Austria, who are all experienced vineyardists and orchardists from childhood, in any number that may be wanted, provided the employers will agree to give them employment for a stated time, with board and lodging, at reasonable wages, and assist financially in bringing them here, which amount to be deducted from their wages. We will take contracts to supply emigrants in numbers to suit, or act as special agents in bringing them from Europe.

We are present in the convention, and shall be pleased to answer any questions or give any information that we may possess from our practical experience of eleven years in the employment business, and we shall be pleased at any time to confer with one and all, verbally or by correspondence.

Any orders that we may be favored with we will do our utmost to fill satisfactorily.

Very respectfully,

C. R. HANSEN & CO.

San Francisco, April 22, 1886.

Hon. John S. Enos, *Commissioner State Bureau of Labor Statistics:*

Dear Sir: In response to your request to send our written opinion, whether white laborers could be had to take the place of the Chinese in orchards and vineyards, we beg leave to reply that we firmly believe that could be done; but in view of the fact that the farmers, who have so far employed a large number of Chinese, have only made provisions in accordance with the simple and rude wants of that people, a change would be, to a certain extent, necessary, in case white help should be employed; and further, in view of the fact that the Chinese employed in that department of industry have acquired a skill which the white help do not now in general possess, we do not believe that the change could be made at once without ruinous consequences, but that it could be made gradually, and in at least two or three years entirely, and that to the advantage and interest of the fruit growers, and the whole State.

Among the many unemployed are a great number of Swiss, Italians, Tyrolese, French, and South Germans, who are more or less experienced orchardists and vineyardists, ready and willing to go to work for $20 a month, if six or eight months' employment would be given them.

We do not presume too much in asserting that experienced foreign gardeners, who thoroughly understand pruning and grafting, would gladly accept positions at $25 a month and found; besides, would instruct and supervise the work of the less experienced hands.

Owing to the present cheap railroad rates a large number of industrious and useful men arrive daily from the Eastern States, and they, with the number of unemployed on hand, will replace many Chinese employed in that particular branch of farming.

Very respectfully,

W. D. EWER & CO.,
626 Clay Street.

Statements received by the Bureau of Labor Statistics, from farmers, relative to the displacement of Chinese during the fruit harvest of 1886; said statements being made in reply to the following questions, viz.:

1. How many Chinese are in your county?
2. How many labor in vineyards, orchards, and hopyards?
3. How many are domestics and servants?
4. How many labor in agricultural pursuits other than mentioned in the preceding questions?
5. Is there sufficient white help in your county to replace the Chinese employed in vineyards and orchards in your county?
6. If not, how many white laborers will it require to fill their places?
7. What time will be required to replace the Chinese?
8. In your opinion, how many Chinese are in the State, employed in vineyards and orchards?
9. How does the white labor compare with that of the Chinese in regard as to quality and quantity?

STATEMENT.

Joseph B. Marlin, *San Lorenzo, Alameda County:*

1. Not less than two thousand during the fruit harvest in Eden Township. After the fruit season, two hundred and fifty or less.
2. Nearly all the above named.
3. Between twenty and thirty.
4. Very few.
5. There is not sufficient to gather one fourth of the fruit crops.
6. It would take twenty-five per cent more white men with no experience, than the present number of Chinese employed.
7. Could not make any estimate.
8. I have no idea.
9. A Chinaman can pick more currants and hops, and pack more fruit than a white man; a white man can pick tree fruits much better than the Chinese can.

The fruit season occurs at the same time as the harvest season, when most available white labor is engaged in harvesting, and we find it difficult even to procure the necessary Chinese labor.

L. L. King, *San Lorenzo, Alameda County:*

There is not sufficient white labor to replace the Chinese. In my opinion a Chinaman can pick more currants than a white man, because it requires one almost entirely to remain in a stooping posture. He can also more expertly pack fruit for eastern shipment in papers. A decent, industrious man can do as much of any kind of work as a Chinaman, but they are scarce. All the residents here have plenty of work, and nearly all the strangers applying here for work are either tramps, or look so much like tramps and indolent appearing, that one dare hardly risk giving them work. At present, with no experience, it will require more white men than Chinese now employed. There is not white labor enough to quite pick one quarter of the fruit raised in the township.

Henry Smyth, *San Lorenzo, Alameda County:*

1. During the height of the season there is employed in picking and packing fruit in the township between fifteen hundred and two thousand Chinese. During the year around in all there are about two hundred Chinamen employed, in different ways.
2. Nearly all the number are employed in orchards and vegetable raising.
3. I don't believe there are twenty.
4. Few, or none.
5. They couldn't pick and pack any more than a quarter of the crop.
6. It would take twenty-five per cent more white men than the Chinese.
7. It will take about ten years to replace the Chinese altogether.
8. I have no idea.
9. A Chinaman can do more work, and do it better, picking small fruits and vegetables, than a white man.

In picking tree fruits they about equal, when the Chinaman has had experience, but nearly all the tree fruit is picked by white men, who are considered the best.

I would, and we all would through here, give the preference to white men in employing, and from fifteen to twenty per cent more wages, than we do to the Chinese, if they will do our work as good, and give us no more bother than the Chinese do.

A. P. Crane, *San Lorenzo, Alameda County:*

1. In the height of the season there are not less than two thousand Chinese employed in orchard products and vegetables.
2. Nearly all the two thousand.
3. Don't think over twenty.
4. None.
5. There is not any more available labor in the township than to gather one quarter of the fruit and pack it.
6. In picking currants and packing, a Chinaman can do more than a white man. White men can pick tree fruits better than a Chinaman.
7. Not less than two or three seasons.
8. Have no idea.
9. Where the white labor is experienced, and such as has replaced the Chinese, they can do more and better work than the Chinese.

B. F. Stoakes, *San Leandro, Alameda County:*

1. Have no idea.
2. Have no idea.
3. Have no idea.
4. Have no idea.
5. I am positive that there is not near enough.

9. As to preference in regard to the quality of labor, in picking currants and packing them, and cherries, I would be compelled to take the Chinese. One can do as much as another, with an equal amount of experience, but a Chinaman will work more steady, and

be more punctual in starting in to work, and is just as exact about knocking off work. The Chinese will pick fruit on Sundays, for the market Monday, when a white man will not. In such cases the Chinaman lays off and will not work on Saturdays, of course, at his own expense. I would not have a Chinaman for plowing and heavy farm work.

JOHN GAWNE, *San Leandro, Alameda County:*

1. In fruit times, there are from two thousand five hundred to three thousand Chinese.
2. All are engaged in fruits, hops, and vegetables.
3. I have no idea as to the number of Chinese servants and domestics.
4. Very few at present, but largely heretofore in binding.
5. Emphatically, no.
6. It will require more white men than the present number of Chinese employed.
7. It will require from two to three years to procure and train men to replace the Chinese engaged in the fruit picking and packing.
8. I have no idea.
9. A Chinaman can average fifteen per cent more in quantity in picking small fruits and grapes than an average white man; also in packing. They will average more trustworthy than the run of white labor in vineyards and orchards.

If I can get white men that will do my work as well as the Chinese, and with no more trouble to me, I shall be willing to, and be glad to pay fifteen to twenty per cent more than the Chinese.

C. W. HATHAWAY, *San Lorenzo:*

1. During the harvest of the fruit crops there are required from one thousand to one thousand five hundred Chinese in Eden Township.
2. The majority in fruits, small berries, and vegetables.
3. Thirty to fifty in the township.
4. Very few in agriculture.
5. There are not one tenth of the number required.
6. Will require more in number than the Chinese until they become acquainted with the business.
7. In my opinion, it will require years to educate the boys and girls, as the men, in industrious habits.
8. Can form no estimate.
9. The Portuguese are considered the best for picking the tree fruits, and the Chinese the best for packing the same and picking small fruits.
10. There are more Portuguese in proportion to any part of the State in this township, and they can only do one quarter of the picking of fruit that is required.

CHAPTER III.

RAILROAD TRANSPORTATION.

The following tables show the capital stock and length of line owned and operated by the broad and narrow gauge railroads in the State of California:

CAPITAL STOCK AND LENGTH OF LINE OWNED AND OPERATED BY THE BROAD AND NARROW GAUGE RAILROADS IN THE STATE OF CALIFORNIA.

Tabulated Statement Compiled from the Annual Reports of the Railroad Companies of the State of California.

Broad Gauge Roads. (Gauge, 4 feet 8½ inches.)	Amount authorized by original Articles of Incorporation.	Amount authorized by vote of Company.	Amount Paid in.	Par Value of Shares.	Amount held in California.	Number of Shareholders.	
						In California.	Total.
1. Amador Branch Co.	$675,000 00	$675,000 00	$675,000 00	$100 00	$648,000 00	11	12
2. Berkeley Branch Co.	100,000 00	100,000 00	100,000 00	100 00	76,800 00	9	10
3. Black Diamond Coal Mining Co.*	------	------	------	------	------	------	------
4. California Northern Railroad Co.†	------	------	------	------	------	------	------
5. California Pacific Railroad Co.	12,000,000 00	12,000,000 00	12,000,000 00	100 00	7,652,400 00	37	130
6. California Southern Railroad Co.	4,400,000 00	4,400,000 00	3,037,600 00	100 00	1,400 00	3	241
7. Central Pacific Railroad Co.	100,000,000 00	100,000,000 00	59,275,500 00	100 00	------	------	2,198
8. Los Angeles and Independence Railroad Co.	4,000,000 00	4,000,000 00	502,500 00	100 00	502,000 00	8	9
9. Los Angeles and San Diego Railroad Co.	5,600,000 00	5,600,000 00	570,800 00	100 00	534,800 00	9	10
10. Monterey Railroad Co.	250,000 00	250,000 00	250,000 00	100 00	247,300 00	9	10
11. Northern Railway Co.	8,400,000 00	8,400,000 00	6,190,500 00	100 00	6,123,000 00	19	20
12. Pittsburg Railroad Company	50,000 00	225,000 00	225,000 00	100 00	32,000 00	3	52
13. Sacramento and Placerville Railroad Co.	2,000,000 00	2,000,000 00	1,756,000 00	100 00	1,226,000 00	18	20
14. Salmon Creek Railroad Co.	100,000 00	100,000 00	9,450 00	100 00	------	------	------
15. San Francisco and North Pacific Railroad Co.	12,350,000 00	5,000,000 00	3,750,000 00	100 00	3,750,000 00	5	5
16. San Pablo and Tulare Railroad Co.	3,750,000 00	3,750,000 00	1,861,000 00	100 00	1,813,300 00	16	17
17. Southern Pacific Railroad Co.	90,000,000 00	90,000,000 00	43,752,200 00	100 00	38,221,150 00	31	37
18. Stockton and Copperopolis Railroad Co.	7,000,000 00	7,000,000 00	234,500 00	100 00	205,200 00	12	14
19. Vaca Valley and Clear Lake Railroad Co.	1,000,000 00	500,000 00	250,000 00	100 00	250,000 00	7	7
20. Visalia Railroad Co.	100,000 00	190,000 00	82,025 00	100 00	82,025 00	85	85
Totals for Broad Gauge Roads	$251,775,000 00	$244,100,000 00	$134,522,075 00	$1,800 00	$61,365,375 00	282	2,877

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* Black Diamond Railroad is not incorporated, but is the property of the Black Diamond Coal Company, which has a capital stock of $5,000,000, of which is paid in $919,296 43.

† California Northern Railroad is owned by Nicholas Luning and N. D. Rideout.

CAPITAL STOCK AND LENGTH OF LINE OWNED AND OPERATED BY THE BROAD AND NARROW GAUGE ROADS—Continued.

Tabulated Statement Compiled from the Annual Reports of the Railroad Companies of the State of California—Continued.

NARROW GAUGE ROADS. (Gauge, 3 feet.)	Amount authorized by original Articles of Incorporation.	Amount authorized by vote of Company.	Amount Paid in.	Par Value of Shares.	Amount held in California.	Number of Shareholders.	
						In California.	Total.
1. Bay and Coast Railroad Company	$1,000,000 00	$1,000,000 00	$100,000 00	$100 00	$100,000 00	5	5
2. Bodie and Benton Railway and Commercial Company	2,000,000 00	2,000,000 00	12,000 00	100 00	190,040 00	10	11
3. Mendocino Railroad Company	150,000 00	150,000 00	96,154 00	100 00	12,000 00	5	5
4. Monterey and Salinas Valley Railroad Company	300,000 00	300,000 00	231,200 00	100 00	231,200 00	6	6
5. Nevada County Narrow Gauge Railroad Company	400,000 00	400,000 00	242,200 00	100 00	242,200 00	134	134
6. North Pacific Coast Railroad Company	1,500,000 00	3,000,000 00	2,500,000 00	100 00	2,300,000 00	9	10
7. Pacific Coast Railroad Company	2,628,500 00	2,628,500 00	1,170,000 00	100 00	2,300,000 00	9	10
8. San Joaquin and Sierra Nevada Railroad Company	1,000,000 00	No action.	296,000 00	100 00	296,000 00	13	13
9. San Rafael and San Quentin Railroad Company	50,000 00	50,000 00	43,820 00	100 00	43,400 00		
10. Santa Cruz Railroad Company	1,000,000 00	1,000,000 00					
11. Santa Cruz and Felton Railroad Company	500,000 00	176,662 00	201,555 19	100 00	201,555 19	92	92
12. Sonoma Valley Railroad Company	200,000 00	200,000 00	200,000 00	100 00	200,000 00	7	7
13. South Pacific Coast Railroad Company	1,000,000 00	1,000,000 00	1,000,000 00	100 00	1,000,000 00	6	7
Totals for Narrow Gauge Roads	$11,728,500 00	$19,028,500 00	$6,999,910 19	$1,200 00	$7,116,355 19	287	292
Grand totals for Broad and Narrow Gauge Roads	$263,503,500 00	$263,128,500 00	$141,521,198 19	$3,000 00	$68,477,730 19	569	3,169

LENGTH OF LINE OWNED BY RAILROAD COMPANIES.

Tabulated Statement Compiled from the Annual Reports of the Railroad Companies of the State of California.

BROAD GAUGE ROADS. (Gauge, 4 feet 8½ inches.)	Date of Incorporation	Termini as Constructed		Length in Miles Owned by the Company					Siding Owned by Company.			On Roadways and Sidings Owned by Company.			
		From—	To—	Steamer	Roadway			Total Roadway and Steamer.	Length in Miles.			Iron Rail.		Steel Rail.	
					Iron	Steel	Total		Iron	Steel	Total	Length (Miles).	Weight (Tons).	Length (Miles).	Weight (Tons).
1. Amador Branch Railroad Company	July 3, 1875	Galt	Ione		27.2000		27.2000	27.2000	2.4858		2.4858	29.6716	2,042.2504		
2. Berkeley Branch Railroad Company	September 25, 1876	Shell Mound	Berryman's		.8200	2.9254	[illegible]	[illegible]	[illegible]	.8500	1.0[illegible]	2.1248	93.5552	6.1542	209.8291
3. Black Diamond Coal Mining Company	June 15, 1861	Black Diamond	Nortonville		6.0000		6.0000	6.0000	.4750		.4750	12.9450	590.2680		
4. California Northern Railroad Company		Marysville	Oroville		26.5000		26.5000	26.5000				53.0000			
5. California Pacific Railroad Company	December 23, 1869														
Main line		Vallejo	Sacramento		44.0516	16.7384	60.7900		17.2457		17.2457				
Napa branch		Adelante	Calistoga		34.1312	.0188	34.1500		[illegible]		[illegible]				
Marysville branch		Davis	Knight's Landing		18.5400		18.5400		[illegible]		[illegible]				
Totals					96.7228	16.7572	113.4800	113.4800	21.7290		21.7290	182.8868	7,315.4720	33.5714	3,715.5903
6. California Southern Railroad Company	December 28, 1881	National City	San Bernardino			129.7500	129.7500	129.7500	1.9000	5.1010	7.0010	3.8200	150.0000	270.8880	[illegible]
7. Central Pacific Railroad Company	August 22, 1870														
Main line without State		State Line	Terminus		109.7750	188.8150	298.5900		69.7178		69.7178				
Main line in California—rail		Oakland Wharf	State Line		35.0798	237.7271	273.7069		113.15[illegible]	7.2071	118.9640				
Main line in California—ferry				3.0000											
Oregon branch		Roseville	Redding		1.3966	148.1176	152.1600		20.7183		20.7183				
Visalia branch		Lathrop	Goshen		13.9010	131.8895	146.7905		13.3351		13.3351				
San José branch		San José	Niles		6.2164	11.3760	17.5863		1.2133		1.2133				
Oakland branch		Oakland Wharf	Brooklyn			5.0598	5.0598		.0674		.0674				
Alameda branch		Oakland Point	Alameda Wharf Melrose Fruit Vale Brooklyn		4.1641	10.8727	15.0068		1.1311		1.1311				
Totals					204.7966	904.4046	1,209.2012	1,212.2012	[illegible]	7.2071	221.5452	1,012.8530		1,823.2180	
8. Los Angeles and Independence Railroad Company	January 4, 1875	Santa Monica	Los Angeles		16.8300		16.8300	16.8300	3.2984		3.2984	37.0584	3,912.9555		
9. Los Angeles and San Diego Railroad Company	October 10, 1876	Florence	Santa Ana		27.8200		27.8200	27.8200	2.0500			60.9100	2,681.3600		
10. Monterey Railroad Company	January 21, 1880	Castroville	Monterey			15.1200	15.1200	15.1200	1.1300		1.1300	2.8000	125.8400	30.2400	1,188.0000
11. Northern Railway Company	July 19, 1871	Oakland	Near Martinez			[illegible]	[illegible]		19.8746		19.8746				
		Benicia	Suisun			10.3128	10.3128		4.9567		4.9567				
		Near Woodland	Tehama		25.4113	75.4188	100.8581		12.4720		12.4720				
Totals					25.4113	122.7827	148.2240	148.2240	37.2803		37.2803	125.4452	5,519.5008	251.9278	10,016.0771
Pittsburg Railroad Company	January 23, 1862	Pittsburg Landing	Somersville		5.3333		5.3333		0.5303		0.5303	11.7272	414.1190		
12. Sacramento and Placerville Railroad Company	April 19, 1877	Sacramento	Shingle Springs		42.4500	5.2500	47.7000	47.7000	6.8100		6.8100	98.4800	[illegible]	10.5000	525.0000
Salmon Creek Railroad Company	April 9, 1875	Salmon Creek Wharf	Salmon Creek Mills		8.0000		8.0000					16.0000			
13. San Francisco and North Pacific Railroad Company	June 29, 1877														
Main line—steamer				31.0000											
Main line—rail		Donahue	Cloverdale		51.5000	5.5000	57.0000		7.0000		7.0000				
Fulton and Guerneville branch		Fulton	Guerneville		16.0000		16.0000		2.5000		2.5000				
Sonoma and Marin branch		Petaluma Junction	San Rafael		20.5000		20.5000		1.5000		1.5000				
Totals					88.0000	5.5000	93.5000	124.5000	11.0000		11.0000	198.0000	8,596.8544	11.0000	432.1428
14. San Pablo and Tulare Railroad Company	July 19, 1871	Tracy	Near Martinez		46.5180		46.5180	46.5180	9.9716		9.9716	109.9172	8,775.008	9.4040	755.9811
15. Southern Pacific Railroad Company	December 18, 1874														
Northern division		San Francisco	Tres Pinos and Soledad		57.1100	103.7500	160.8600		30.8700	0.3700	31.2400				
Goshen division		Huron	Goshen			40.0000	40.0000		[illegible]	1.5100	2.2100				
Tulare division		Goshen	Mojave		12.0400	99.0500	111.0900		14.7700	4.1300	18.9000				
Colorado division		Mojave	Needles			242.5100	242.5100		17.7000		17.7000				
Los Angeles division		Mojave	Los Angeles		[illegible]	85.7400	90.1200		[illegible]	[illegible]	[illegible]				
Yuma division		Los Angeles	Colorado River		79.5700	188.2100	247.7800		17.4100	[illegible]	22.0[illegible]				
Wilmington division		Los Angeles	San Pedro		19.1500	5.3500	24.5000		6.8100	[illegible]	[illegible]				
Totals					193.0200	763.0000	956.0400	956.0400	193.0200	76.3000	269.6100	2,119.1800	88,022.7300	117.5100	17,957.6700
16. Stockton and Copperopolis Railroad Company	November 17, 1877	Stockton	Oakdale		32.6[illegible]		32.6[illegible]		3.4[illegible]		3.4[illegible]				
		Peters	Milton		11.7928		11.7928	11.7928	.4[illegible]		.4[illegible]				
Totals					44.4[illegible]		44.4[illegible]	44.4[illegible]	3.9[illegible]		3.9[illegible]	97.1740	3,816.7620		
17. Vaca Valley and Clear Lake Railroad Company	February 19, 1877	Elmira	Madison		29.0000		29.0000	29.0000	2.0000						
18. Visalia Railroad Company	May 21, 1874	Visalia	Goshen		7.3333		7.3333	7.3333	1.0000		1.0000	16.6666			
Totals for Broad Gauge Roads				37.6900	966.4600	1,997.1878	2,962.6485	2,987.3152	[illegible]	[illegible]	1,297.4772	4,160.8362	129,207.6390	3,035.0534	47,230.6705
NARROW GAUGE. (Gauge, 3 feet.)															
1. Bay and Coast Railroad Company	May 2, 1877	Alameda Point	Newark		24.1000		24.1000	27.7000	1.2500		1.2500	50.5000	2,370.5000		
Ferry Line		San Francisco	Alameda Wharf	3.6000											
2. Bodie and Benton Railway and Commercial Company	January 24, 1882	Bodie	Mono		21.0000	15.0000	36.0000	36.0000	1.0000		1.0000	[illegible]	1,155.0000	30.0000	825.0000
3. Mendocino Railroad Company	October 22, 1875	Cuffey's Cove	Helmke's Mill		4.0000		4.0000	4.0000	.5000		.5000	9.0000			
4. Monterey and Salinas Valley Railroad Company	February 26, 1874	Salinas	Monterey		18.5000		18.5000	18.5000	1.5000		1.5000	40.1250	[illegible]		
5. Nevada County Narrow Gauge Railroad Company	April 4, 1874	Colfax	Nevada City		20.5000	2.1000	22.6000	22.6000	2.1000		2.1000	45.1600	[illegible]	4.0000	108.5000
6. North Pacific Coast Railroad Company	December 16, 1871														
Main line—steamer		San Francisco	San Quentin Point	11.5900											
Main line—rail		Saucelito	Duncan's Mill		60.2500	14.0000	74.2500		12.0000		12.0000				
Branch		Junction	San Rafael		2.0000										
Totals					62.2500	14.0000	[illegible]	[illegible]	12.0000		12.0000	[illegible]	[illegible]	28.0000	[illegible]
7. Pacific Coast Railroad Company	September 23, 1882	Port Harford	Los Alamos		8.8000	55.0000	63.8000	63.8000							
8. Santa Cruz Railroad Company	June 3, 1873	Santa Cruz	Pajaro		21.1650		21.1650	21.1650	1.8750		1.8750	46.0800	[illegible]		
9. Santa Cruz and Felton Railroad Company	August 26, 1874	Santa Cruz	Felton		9.0000		9.0000	9.0000	1.0000		1.0000	20.0000	[illegible]		
10. San Joaquin and Sierra Nevada Railroad Company	March 28, 1882	Brack's	Wallace		9.5000	20.8000	30.3000	30.3000	3.2000	0.7000	3.9000	25.4000	[illegible]	43.1200	1,185.8000
11. San Rafael and San Quentin Railroad Company	February 29, 1869	San Rafael	San Quentin		3.5000		3.5000	3.5000				7.0000	[illegible]		
12. Sonoma Valley Railroad Company	July 24, 1878														
Main line		Sonoma Landing	Sonoma		15.0000		15.0000		1.0000		1.0000				
Branch		Sonoma	Glen Ellen		6.5000		6.5000								
Totals					21.5000		21.5000	21.5000	1.0000		1.0000	45.0000	[illegible]		
13. South Pacific Coast Railroad Company	March 29, 1876	Newark	Junction at Felton		45.3000		45.3000	45.3000	9.8400		9.8400	[illegible]	[illegible]		
Totals for Narrow Gauge Roads				15.1900	269.3150	105.8000	376.1150	387.6150	[illegible]	0.7000	46.0230	553.3713	21,828.1092	75.1200	1,290.0400
Totals for Broad and Narrow Gauge Roads				52.8800	1,235.7750	2,102.9878	3,338.7635	3,374.9302	[illegible]	878.1113	1,343.5002	4,714.2075	151,035.7482	3,110.1734	48,520.7105

LENGTH OF LINE OPERATED BY RAILROAD COMPANIES.

Tabulated Statement Compiled from the Annual Reports of the Railroad Companies of the State of California.

Broad Gauge Roads. (Gauge, 4 feet 8½ inches.)	Owned by Company.				Operated under Lease.			Total Line Operated.		
	Steamer. (Miles.)	Roadway.		Total Roadway and Steamer. (Miles.)	Roadway.		Total Roadway and Steamer. (Miles.)	Roadway.		Total Roadway and Steamer. (Miles.)
		In Cal. (Miles.)	Out of Cal. (Miles.)		In Cal. (Miles.)	Out of Cal. (Miles.)		In Cal. (Miles.)	Out of Cal. (Miles.)	
1. Amador Branch Railroad Company*										
2. Berkeley Branch Railroad Company*										
3. Black Diamond Coal Mining Company		6.0000		6.0000				6.0000		6.0000
4. California Northern Railroad Company		26.5000		26.5000				26.5000		26.5000
5. California Pacific Railroad Company*										
6. California Southern Railroad Company		129.7500		129.7500				129.7500		129.7500
7. Central Pacific Railroad Company	3.6900	610.1202	598.3701	1,212.1803	918.5100	1,238.6700	2,157.1800	1,528.6302	1,837.0401	3,369.3603
8. Los Angeles and Independence Railroad Company*										
9. Los Angeles and San Diego Railroad Company*										
10. Monterey Railroad Company†										
11. Northern Railway Company*										
12. Pittsburg Railroad Company		5.3333		5.3333				5.3333		5.3333
13. Sacramento and Placerville Railroad Company‡		48.7100		48.7100				48.7100		48.7100
14. Salmon Creek Railroad Company		8.0000		8.0000				8.0000		8.0000
15. San Francisco and North Pacific Railroad Company	34.0000	92.5000		126.5000				92.5000		126.5000
16. San Pablo and Tulare Railroad Company*										
17. Southern Pacific Railroad Company		957.6100		957.6100				957.6100		957.6100
18. Stockton and Copperopolis Railroad Company*										
19. Vaca Valley and Clear Lake Railroad Company		29.0000		29.0000				29.0000		29.0000
20. Visalia Railroad Company		7.3333		7.3333				7.3333		7.3333
Totals for Broad Gauge Roads	37.6900	1,820.8568	598.3701	2,456.9169	918.5000	1,238.6700	2,157.1800	2,739.3668	1,837.0401	4,576.4039

* Operated by Central Pacific Railroad Company.
† Operated by Southern Pacific Railroad Company.
‡ This road operated also by Central Pacific Railroad Company to run its trains on.

Length of Line Operated by Railroad Companies—Continued.

Narrow Gauge Roads. (Gauge, 3 feet.)	Owned by Company.				Operated under Lease.			Total Line Operated.		
	Steamer. (Miles.)	Roadway.		Total Roadway and Steamer. (Miles.)	Roadway.		Total Roadway and Steamer. (Miles.)	Roadway.		Total Roadway and Steamer. (Miles.)
		In Cal. (Miles.)	Out of Cal. (Miles.)		In Cal. (Miles.)	Out of Cal. (Miles.)		In Cal. (Miles.)	Out of Cal. (Miles.)	
1. Bay and Coast Railroad Company*	3.6900									
2. Bodie and Benton Railway and Commercial Company		36.0000		36.0000				36.0000		36.0000
3. Mendocino Railroad Company		4.0000		4.0000				4.0000		4.0000
4. Monterey and Salinas Railroad Company†										
5. Nevada County Narrow Gauge Railroad Company		22.6400		22.6400				22.6400		22.6400
6. North Pacific Coast Railroad Company	11.5000	76.2500		87.7500	3.5000		3.5000	79.7500		91.2500
7. Pacific Coast Railroad Company		63.8000		63.8000				63.8000		63.8000
8. San Joaquin and Sierra Nevada Railroad Company		30.3000		30.3000				30.3000		30.3000
9. San Rafael and San Quentin Railroad Company‡										
10. Santa Cruz Railroad Company†										
11. Santa Cruz and Felton Railroad Company*										
12. Sonoma Valley Railroad Company		21.5000		21.5000				21.5000		21.5000
13. South Pacific Coast Railroad Company	3.5000	45.3000		48.8000	42.0000		42.0000	87.3000		90.8000
Totals for Narrow Gauge Roads	18.6900	299.7900		314.7900	45.5000		45.5000	346.2900		360.2900
Grand totals for Broad and Narrow Gauge Roads	46.3800	2,120.6468	598.3701	2,761.7069	964.0000	1,238.6700	3,395.8500	2,085.6568	1,837.0401	4,936.6939

* Operated by South Pacific Coast Railroad Company.
† Operated by Southern Pacific Railroad Company.
‡ Operated by North Pacific Coast Railroad Company.

The following tables show the mileage, traffic, etc., of the broad gauge railroads in the State of California:

CALIFORNIA NORTHERN RAILROAD.

Mileage, Traffic, Etc.

1.	Miles run by passenger trains	19,345
2.	Rate of speed of mixed trains, including stops	20 miles per hour.
15.	Highest rate of fare per mile for any distance (excluding one mile)	$7\frac{54}{100}$ cents.
16.	Lowest rate of fare per mile for any distance (single fare)	$5\frac{55}{100}$ cents.
21.	Highest rate of freight per ton per mile for any distance—first class	$11\frac{32}{100}$ cents.
22.	Lowest rate of freight per ton per mile for any distance	$2\frac{64}{100}$ cents.
30.	Number of persons regularly employed by company, including officers.	21
	Average monthly pay of engine drivers	$90 00
	Average monthly pay of passenger conductors	60 00
	Average monthly pay of baggage masters	50 00
	Average monthly pay of brakemen, flagmen, and switchmen	50 00
	Average monthly pay of section men	40 00
	Average monthly pay of laborers	40 00

CALIFORNIA SOUTHERN RAILROAD COMPANY.

Mileage, Traffic, Etc.

1.	Miles run by passenger trains		All trains run were mixed trains.
3.	Rate of speed of accommodation trains, including stops, per hour		14 miles.
4.	Miles run by freight trains		All were mixed trains.
6.	Rate of speed of accommodation freight trains, including stops, per hour (All trains run were mixed passenger and freight.)		14 miles.
8.	Total train miles run (mixed trains)		91,094
9.	Total number of passengers carried		14,389
	Number of through passengers going west (or south)		69
	Number of local passengers going east (or north)		7,239
	Number of local passengers going west (or south)		7,081
10.	Total passenger mileage, or passengers carried one mile		939,911
11.	Passenger mileage to and from other roads		8,246
	Average number of miles traveled by each local passenger		65.06
	Average number of miles traveled by each through passenger		119.51
	Average number of miles traveled by each passenger, through and local		65.32
12.	Number of tons freight carried (not including gravel)		14,932
	Number of tons freight in this State, carried		14,932
	Number of tons freight produced in this State, carried		7,775
	Number of tons of each class of freight, produced in this State, carried:		
	Grain	256	
	Flour	113	
	Hay	111	
	Wool	132	
	Wood	378	
	Lumber	5,378	
	Lime	123	
	Fruit	235	
	Miscellaneous	549	
13.	Total freight mileage, or tons carried one mile		1,584,939
15.	Highest rate of fare per mile for any distance (excluding one mile)		5 cents.
16.	Lowest rate of fare per mile for any distance (single fare)		$\frac{46}{100}$ cents.
	Round trip		$\frac{34}{100}$ cents.
17.	Average rate of fare per mile (not including season tickets) received from local passengers on roads operated by this company		4 cents.
18.	Average rate of fare per mile received from passengers to and from other roads		4.5 cents.
20.	Average rate of fare per mile for all passengers		4 cents.
21.	Highest rate of freight per ton per mile for any distance		15 cents.
22.	Lowest rate of freight per ton per mile for any distance		1 cent.
25.	Average rate of freight per ton per mile for all		02.7
	Average rate of freight per ton per mile, products of this State		02.7
	Average rate of freight per ton per mile, products of other States		02.7
26.	Average number of cars in passenger trains, including baggage cars		46
27.	Average number of cars in freight trains—basis of eight-wheel		
28.	Average weight of mixed trains, including locomotives and tenders, in working order (exclusive of passengers)		211,000

30. Number of persons regularly employed by company, including officers	123
Average monthly pay of employés, other than officers	$56 00
Average monthly pay of engine drivers	135 00
Average monthly pay of passenger conductors	100 00
Average monthly pay of freight conductors	100 00
Average monthly pay of baggage masters	75 00
Average monthly pay of brakemen, flagmen, and switchmen	60 00
Average monthly pay of section men	30 00
Average monthly pay of mechanics in shops	85 00
Average monthly pay of laborers	60 00

CENTRAL PACIFIC RAILROAD COMPANY.

Mileage, Traffic, Etc.

1. Miles run by passenger trains	3,221,510
2. Rate of speed of express passenger trains, including stops	21⅓
3. Rate of speed of accommodation trains, including stops	16⅛
4. Miles run by freight trains	5,881,070
5. Rate of speed of express freight trains, including stops	No trains of this class.
6. Rate of speed of accommodation freight trains, including stops	11½
7. Miles run by other trains, and for what purpose:	
Switching	1,492,501
Work	619,084
8. Total train miles run	11,214,165
9. Total number of passengers carried	8,542,583
Number of through passengers going east (or north)	40,107
Number of through passengers going west (or south)	73,700
Number of local passengers going east (or north)	4,181,224
Number of local passengers going west (or south)	4,247,552
10. Total passenger mileage, or passengers carried one mile	291,109,508
11. Passenger mileage to and from other roads	100,621,543
Average number of miles traveled by each local passenger	22.60
Average number of miles traveled by each through passenger	884.14
Average number of miles traveled by each passenger, through and local	34.08
12. Number of tons freight carried (not including gravel): Freight statistics are not yet completed for 1883.	
15. Highest rate of fare per mile for any distance (excluding one mile):	
Prior to August 19, 1883	10 cents.
After August 19, 1883, reduced to (order of Board Railroad Commissioners)	6 cents.
16. Lowest rate of fare per mile for any distance (single fare), main line	1.66⅔ cents.
Ferry, single fare	1.05 cents.
Ferry, commutation	.40 cents.
17. Average rate of fare per mile (not including season tickets) received from local passengers on roads operated by this company	2.65 cents.
Average rate of fare per mile received from local passengers on roads operated by this company, not including ferry or season tickets	3.42 cents.
18. Average rate of fare per mile received from passengers to and from other roads	2.88 cents.
19. Average rate of fare per mile per season ticket passengers, reckoning one round trip per day to each ticket	None.
20. Average rate of fare per mile for all passengers	2.73 cents.
21. Highest rate of freight per ton per mile for any distance: Freight statistics for 1883 not yet completed.	
30. Number of persons regularly employed by company, including officers, December 31, 1883	11,890
Average monthly pay of employés, other than officers (white)	$64 60
Average monthly pay of engine drivers	100 00 to 130 00
Average monthly pay of passenger conductors	100 00 to 115 00
Average monthly pay of freight conductors	85 00 to 100 00
Average monthly pay of baggage masters	75 00
Average monthly pay of brakemen, flagmen, switchmen, etc.	65 00 to 80 00
Average monthly pay of section men (white)	44 62
Average monthly pay of mechanics in shops	79 79
Average monthly pay of laborers	65 00

The following railroads are included in the above, viz.:

Amador Branch Railroad Company.
Berkeley Branch Railroad Company.
California Pacific Railroad Company.

Los Angeles and Independence Railroad Company.
Los Angeles and San Diego Railroad Company.
Monterey Railroad Company.
Northern Railway Company.
San Pablo and Tulare Railroad Company.
Stockton and Copperopolis Railroad Company.

SACRAMENTO AND PLACERVILLE RAILROAD COMPANY.

Mileage, Traffic, Etc.

1. Miles run by passenger trains	13,772
2. Rate of speed of express passenger trains, including stops	20
3. Rate of speed of accommodation trains, including stops	12
4. Miles run by freight trains (mixed)	30,048
6. Rate of speed of accommodation freight trains, including stops	12
7. Miles run by other trains, and for what purpose:	
Excursion	608
Switching and work	4,318
8. Total train miles run	48,746
9. Total number of passengers carried	24,638
Number of through passengers going east	1,558
Number of through passengers going west	1,739
Number of local passengers going east	11,290
Number of local passengers going west	10,051
10. Total passenger mileage, or passengers carried one mile	560,030
12. Number of tons freight carried (not including gravel)	40,158$\frac{578}{2000}$
13. Total freight mileage, or tons carried one mile	1,809,317$\frac{16}{100}$
15. Highest rate of fare per mile for any distance (excluding one mile)	6 cents.
17. Average rate of fare per mile (not including season tickets) received from local passengers on roads operated by this company	6 cents.
20. Average rate of fare per mile for all passengers	6 cents.
26. Average number of cars in passenger trains (including baggage cars)	2
27. Average number of cars in freight trains—basis of eight-wheel	10
28. Average weight of passenger trains, including locomotives and tenders, in working order (exclusive of passengers)	167,200
29. Average weight of freight trains, including locomotive and tender, in working order (exclusive of freight)	240,000
30. Number of persons regularly employed by company, including officers	42
Average monthly pay of engine drivers	$120 00
Average monthly pay of passenger conductors	100 00
Average monthly pay of baggage masters	65 00
Average monthly pay of brakemen, flagmen, and switchmen	65 00
Average monthly pay of section men	44 00
Average monthly pay of laborers	40 00

SAN FRANCISCO AND NORTH PACIFIC RAILROAD COMPANY.

Mileage, Traffic, Etc.

2. Rate of speed of express passenger trains, including stops	22 miles.
3. Rate of speed of accommodation trains, including stops	10½ miles.
5. Rate of speed of express freight trains, including stops	10½ miles.
6. Rate of speed of accommodation freight trains, including stops	10½ miles.
26. Average number of cars in passenger trains (including baggage cars)	4
27. Average number of cars in freight trains—basis of eight-wheel	18
28. Average weight of passenger trains, including locomotives and tenders, in working order (exclusive of passengers)	270,495
29. Average weight of freight trains, including locomotive and tender, in working order (exclusive of freight)	375,489
30. Number of persons regularly employed by company, including officers	245
Average monthly pay of employés, other than officers	$59 10
Average monthly pay of engine drivers	100 00 to 110 00
Average monthly pay of passenger conductors	100 00
Average monthly pay of freight conductors	87 50
Average monthly pay of baggage masters	65 00
Average monthly pay of brakemen, flagmen, and switchmen	60 00
Average monthly pay of section men as foremen	60 00
Average monthly pay of mechanics in shops	90 00
Average monthly pay of laborers	47 50

SOUTHERN PACIFIC RAILROAD COMPANY.

Mileage, Traffic, Etc.

1. Miles run by passenger trains	299,130
4. Miles run by freight trains	118,205

7. Miles run by other trains, and for what purpose:		
Mixed freight and passenger trains		94,902
Gravel trains		2,037
Pay trains		3,880
8. Total train miles run		518,154
9. Total number of passengers carried		604,077
Number of through passengers going north		None.
Number of through passengers going south		None.
Number of local passengers going north		$299,909\frac{1}{3}$
Number of local passengers going south		$304,167\frac{1}{2}$
10. Total passenger mileage, or passengers carried one mile		22,592,051
11. Passenger mileage to and from other roads		676,545
Average number of miles traveled by each local passenger		$37\frac{40}{100}$
Average number of miles traveled by each through passenger		None.
Average number of miles traveled by each passenger, through and local		$37\frac{40}{100}$
12. Number of tons freight carried (not including gravel):*		
Number of tons freight from other States carried		293,801
Number of tons of each class of freight, produced in this State, carried:		
Asphaltum	47	
Brick	7,372	
Charcoal	188	
Coal	26,609	
Fence posts	1,730	
Flour	9,936	
Fruit	4,925	
Grain	62,824	
Hay	18,700	
Lime	3,260	
Lumber	24,901	
Milk	3,745	
Pickets	1,550	
Quicksilver	1,423	
Shingles	1,980	
Stock	26,200	
Tanbark	250	
Vegetables	6,304	
Wood	7,250	
Wool	1,385	
Merchandise	93,222	
		293,801 tons.
13. Total freight mileage, or tons carried one mile		18,228,184
15. Highest rate of fare per mile for any distance (excluding one mile)		10 cents maximum.
16. Lowest rate of fare per mile for any distance (single fare):		
Prior to August nineteenth		$2\frac{72}{100}$ cents.
Since August nineteenth		$2\frac{17}{100}$ cents.
17. Average rate of fare per mile (not including season tickets) received from local passengers on roads operated by this company		$2\frac{70}{100}$ cents.
Average rate of fare per mile received from local passengers on roads operated by this company, not including ferry or season tickets		No ferry.
18. Average rate of fare per mile received from passengers to and from other roads		$2\frac{96}{100}$ cents.
19. Average rate of fare per mile for season ticket passengers, reckoning one round trip per day to each ticket		$0\frac{70}{100}$ cents.
20. Average rate of fare per mile for all passengers		$2\frac{56}{100}$ cents.
21. Highest rate of freight per ton per mile for any distance		15 cents.
22. Lowest rate of freight per ton per mile for any distance		2 cents.
23. Average rate of local freight per ton per mile on roads operated by this company		$3\frac{42}{100}$ cents.
26. Average number of cars in passenger trains (including baggage cars)		$4\frac{79}{100}$
27. Average number of cars in freight trains—basis of eight-wheel		$18\frac{59}{100}$
28. Average weight of passenger trains, including locomotives and tenders, in working order (exclusive of passengers)		290.377
29. Average weight of freight trains, including locomotive and tender, in working order (exclusive of freight)		460.469
30. Number of persons regularly employed by company, including officers		620
Average monthly pay of employés, other than officers		$64 25
Average daily pay of engine drivers		3 50 to 4 25
Average monthly pay of passenger conductors		85 00 to 110 00
Average monthly pay of freight conductors		85 00 to 100 00
Average monthly pay of baggagemasters		75 00
Average monthly pay of brakemen, yardmen, flagmen, switchmen		65 00 to 100 00

Average pay of section men	$1 75 per day to $65 per month.
Average pay of mechanics in shops	20 to 45 cents per hour.
Average daily pay of laborers	$1 75 to $2 00

VACA VALLEY AND CLEAR LAKE RAILROAD COMPANY.

Mileage, Traffic, Etc.

1. Miles run by passenger trains	120 miles daily.
2. Rate of speed of express passenger trains, including stops	15 miles.
3. Rate of speed of accommodation trains, including stops	15 miles.
4. Miles run by freight trains	120 miles daily.
5. Rate of speed of express freight trains, including stops	15 miles.
6. Rate of speed of accommodation freight trains, including stops	15 miles.
16. Lowest rate of fare per mile for any distance (single fare)	5 cents.
17. Average rate of fare per mile (not including season tickets) received from local passengers on roads operated by this company	About 7 cents.
Average rate of fare per mile received from local passengers on roads operated by this company, not including ferry or season tickets	6 cents.
18. Average rate of freight per mile received from passengers to and from other roads	20 cents.
22. Lowest rate of freight per ton per mile for any distance	4½ cents.
23. Average rate of local freight per ton per mile on roads operated by this company	7 cents.
24. Average rate of freight per ton per mile to and from other roads	7 cents.
25. Average rate of freight per ton per mile for all	7 cents.
30. Number of persons regularly employed by company, including officers, about	30
Average monthly pay of employés, other than officers	$65 00
Average monthly pay of engine drivers	100 00
Average monthly pay of passenger conductors	100 00
Average monthly pay of freight conductors	65 00
Average monthly pay of brakemen, flagmen, and switchmen	50 00
Average monthly pay of section men	50 00
Average monthly pay of laborers	50 00

VISALIA RAILROAD COMPANY.

Mileage, Traffic, Etc.

1. Miles run by passenger trains	29⅓ daily.
2. Rate of speed of express passenger trains, including stops	20 miles.
8. Total train miles run	29⅓ daily.
15. Highest rate of fare per mile for any distance (excluding one mile)	10 cents.
16. Lowest rate of fare per mile for any distance (single fare)	10 cents.
21. Highest rate of freight per ton per mile for any distance	$68\frac{2}{11}$ cents.
22. Lowest rate of freight per ton per mile for any distance	2 cents.
23. Average rate of local freight per ton per mile on roads operated by this company	41 cents.
26. Average number of cars in passenger trains (including baggage cars)	1
27. Average number of cars in freight trains—basis of eight-wheel	1
30. Number of persons regularly employed by company, including officers.	6

The following tables show the mileage, traffic, etc., of the narrow gauge railroads in the State of California:

BODIE AND BENTON RAILWAY AND COMMERCIAL COMPANY.

Mileage, Traffic, Etc.

4. Miles run by freight trains	27,617
5. Rate of speed of express freight trains, including stops	12 miles.
6. Rate of speed of accommodation freight trains, including stops	12 miles.
7. Miles run by other trains, and for what purpose:	
Construction	1,000
8. Total train miles run	28,617
9. Total number of passengers carried	Unknown.
12. Number of tons of freight carried (not including gravel)	23,580
Number of tons freight in this State, carried	23,580
Number of tons freight produced in this State, carried	23,580
13. Total freight mileage, or tons carried one mile	778,140
21. Highest rate of freight per ton per mile for any distance	15 cents.
22. Lowest rate of freight per ton per mile for any distance	15 cents.

23. Average rate of local freight per ton per mile on roads operated by this company	15 cents.
25. Average rate of freight per ton per mile for all:	
Average rate of freight per ton per mile, products of this State	15 cents.
27. Average number of cars in freight trains—basis of eight-wheel	8
29. Average weight of freight trains, including locomotive and tender, in working order (exclusive of freight)	73 tons.
30. Number of persons regularly employed by company, including officers	45
Average monthly pay of employés, other than officers	$110 00
Average monthly pay of engine drivers	137 50
Average monthly pay of freight conductors	150 00
Average monthly pay of brakemen, flagmen, and switchmen	112 50
Average monthly pay of section men	80 00
Average monthly pay of mechanics in shops	175 00
Average monthly pay of laborers	75 00

NEVADA COUNTY NARROW GAUGE RAILROAD COMPANY.

Mileage, Traffic, Etc.

1. Miles run by passenger trains	6,043
2. Rate of speed of express passenger trains, including stops	$11\frac{1}{3}$
3. Rate of speed of accommodation trains, including stops	$11\frac{1}{3}$
4. Miles run by freight trains	8,856
5. Rate of speed of express freight trains, including stops	10
6. Rate of speed of accommodation freight trains, including stops	10
7. Miles run by other trains, and for what purpose:	
Mixed passenger and freight	34,621
Service trains	2,933
8. Total train miles run	52,453
9. Total number of passengers carried	40,223
10. Total passenger mileage, or passengers carried one mile	287,472
11. Passenger travel to and from other roads:	
Average number of miles traveled by each local passenger	8
Average number of miles traveled by each through passenger	$19\frac{1}{2}$
Average number of miles traveled by each passenger, through and local	$9\frac{1}{2}$
12. Number of tons of freight carried (not including gravel)	27,325
13. Total freight mileage, or tons carried one mile	403,875
15. Highest rate of fare per mile for any distance (excluding one mile)	10 cents.
16. Lowest rate of fare per mile for any distance (single fare)	$5\frac{1}{2}$ cents.
17. Average rate of fare per mile (not including season tickets) received from local passengers on roads operated by this company	$5\frac{5}{81}$ cents.
18. Average rate of fare per mile received from passengers to and from other roads	10 cents.
20. Average rate of fare per mile for all passengers	$8\frac{14}{100}$ cents.
21. Highest rate of freight per ton per mile for any distance under seven miles	25 cents.
22. Lowest rate of freight per ton per mile for any distance	$3\frac{3}{4}$ cents.
23. Average rate of local freight per ton per mile on roads operated by this company	$16\frac{89}{100}$ cents.
26. Average number of cars in passenger trains (including baggage cars)	$2\frac{13}{100}$
27. Average number of cars in freight trains—basis of eight-wheel	$2\frac{88}{100}$
28. Average weight of passenger trains, including locomotives and tenders, in working order (exclusive of passengers)	$42\frac{1340}{2000}$
29. Average weight of freight trains, including locomotive and tender, in working order (exclusive of freight)	$35\frac{40}{2000}$
30. Number of persons regularly employed by company, including officers	44
Average monthly pay of employés, other that officers	$62 25
Average monthly pay of engine drivers	111 25
Average monthly pay of passenger conductors	100 00
Average monthly pay of freight conductors	90 00
Average monthly pay of baggage masters	75 00
Average monthly pay of brakemen, flagmen, and switchmen	65 00
Average monthly pay of section men	52 00
Average monthly pay of mechanics in shops	91 00
Average monthly pay of laborers	52 00

NORTH PACIFIC COAST RAILROAD COMPANY.

Mileage, Traffic, Etc.

1. Miles run by passenger trains	97,182
2. Rate of speed of express passenger trains, including stops	15 miles.
3. Rate of speed of accommodation trains, including stops	10 miles.
4. Miles run by freight trains	107,402
5. Rate of speed of express freight trains, including stops	None.

6. Rate of speed of accommodation freight trains, including stops	10 miles.
7. Miles run by other trains, and for what purpose:	
Gravel	13,273
8. Total train miles run	217,857
9. Total number of passengers carried	773,991
Number of through passengers going east (or north)	None.
Number of through passengers going west (or south)	None.
Number of local passengers going east (or north)	389,207
Number of local passengers going west (or south)	384,784
10. Total passenger mileage, or passengers carried one mile	10,288,194
11. Passenger mileage to and from other roads	No statistics.
Average number of miles traveled by each local passenger	$13\frac{29}{100}$
Average number of miles traveled by each passenger, through and local	$73\frac{29}{100}$
12. Number of tons freight carried (not including gravel)	$69,179\frac{115}{1000}$
Number of tons freight from other States, carried	None.
Number of tons freight in this State, carried	All.
Number of tons freight produced in this State, carried	No statistics.
Number of tons of each class of freight, produced in this State, carried	No statistics.
13. Total freight mileage, or tons carried one mile	3,296,425
14. Freight mileage to and from other roads	No statistics.
15. Highest rate of fare per mile for any distance (excluding one mile)	$8\frac{56}{100}$ cents.
16. Lowest rate of fare per mile for any distance (single fare)	$2\frac{1}{2}$ cents.
17. Average rate of fare per mile (not including season tickets) received from local passengers on roads operated by this company	None.
Average rate of fare per mile received from local passengers on roads operated by this company, not including ferry or local tickets	$2\frac{43}{100}$ cents.
18. Average rate of fare per mile received from passengers to and from other roads	No statistics.
19. Average rate of fare per mile for season ticket passengers, reckoning one round trip per day to each ticket	$\frac{71}{100}$ cents.
20. Average rate of fare per mile for all passengers	$2\frac{7}{100}$ cents.
21. Highest rate of freight per ton per mile for any distance	$46\frac{2}{3}$ cents.
22. Lowest rate of freight per ton per mile for any distance	$3\frac{1}{8}$ cents.
23. Average rate of local freight per ton per mile on roads operated by this company	$4\frac{377}{1000}$ cents.
24. Average rate of freight per ton per mile to and from other roads	None.
25. Average rate of freight per ton per mile for all	$4\frac{377}{1000}$ cents.
Average rate of freight per ton per mile, products of this State	No statistics.
Average rate of freight per ton per mile, products of other States	No statistics.
26. Average number of cars in passenger trains, including baggage cars	4
27. Average number of cars in freight trains—basis of eight-wheel	20
28. Average weight of passenger trains, including locomotives and tenders, in working order (exclusive of passengers)	104,000
29. Average weight of freight trains, including locomotive and tender, in working order (exclusive of freight)	226,000
30. Number of persons regularly employed by company, including officers	271
Average monthly pay of engine drivers	$100 00
Average monthly pay of passenger conductors	90 00
Average monthly pay of freight conductors	85 00
Average monthly pay of baggage masters	60 00
Average monthly pay of brakemen, flagmen, and switchmen	60 00
Average monthly pay of section men	70 00
Average monthly pay of mechanics in shops	90 00
Average monthly pay of laborers	26 00

PACIFIC COAST RAILWAY COMPANY.

Mileage, Traffic, Etc.

2. Rate of speed of express passenger trains, including stops	15 miles.
4. Miles run by freight trains	12 miles.
13. Total freight mileage, or tons carried one mile	1,085,923
15. Highest rate of fare per mile for any distance (excluding one mile)	8 cents.
16. Lowest rate of fare per mile for any distance (single fare)	6 cents.
20. Average rate of fare per mile for all passengers	$6\frac{3}{10}$ cents.
25. Average rate of freight per ton per mile for all	$8\frac{2}{11}$ cents.
30. Number of persons regularly employed by company, including officers	175
Average monthly pay of employés, other than officers	$80 00
Average monthly pay of engine drivers	110 00
Average monthly pay of passenger conductors	90 00
Average monthly pay of freight conductors	80 00
Average monthly pay of baggage masters	50 00
Average monthly pay of brakemen, flagmen, and switchmen	50 00
Average pay of section men	$1 75 per day.

Average monthly pay of mechanics in shops	$100 00
Average pay of laborers	$2 00 per day.

SAN JOAQUIN AND SIERRA NEVADA RAILROAD COMPANY.

Mileage, Traffic, Etc.

1. Miles run by passenger and freight trains in 1883	341.84
2. Rate of speed of express passenger trains, including stops	15 miles.
3. Rate of speed of accommodation trains, including stops	12 miles.
4. Miles run by freight trains	Included in 1.
5. Rate of speed of express freight trains, including stops	See 2 and 3.
6. Rate of speed of accommodation freight trains, including stops	
7. Miles run by other trains, and for what purpose	No statistics.
8. Total train miles run	34,184
9. Total number of passengers carried	18,756
Number of passengers going east (or north)	9,567
Number of passengers going west (or south)	9,189
10. Total passenger mileage, or passengers carried one mile	No statistics.
11. Passenger mileage to and from other roads	No statistics.
Average number of miles traveled by each local passenger	No statistics.
Average number of miles traveled by each through passenger	No statistics.
Average number of miles traveled by each passenger, through and local	No statistics.
12. Number of tons freight carried (not including gravel) in 1882	24,398.1300
Number of tons freight from other States, carried	No statistics.
Number of tons freight in this State, carried in 1883	24,398.1300
Number of tons freight produced in this State, carried	No statistics.
Number of tons of each class of freight, produced in this State, carried	No statistics.
13. Total freight mileage, or tons carried one mile	No statistics.
14. Freight mileage to and from other roads	No statistics.
15. Highest rate of fare per mile for any distance (excluding one mile)	5 cents.
16. Lowest rate of fare per mile for any distance (single fare) 500 mile tickets	4 cents.
17. Average rate of fare per mile (not including 500 mile tickets) received from local passengers on roads operated by this company	5 cents.
Average rate of fare per mile received from local passengers on roads operated by this company, not including ferry or season tickets	5 cents.
18. Average rate of fare per mile received from passengers to and from other roads	5 cents.
19. Average rate of fare per mile for season ticket passengers, reckoning one round trip per day to each ticket	No season ticket.
20. Average rate of fare per mile for all passengers	No statistics.
21. Highest rate of freight per ton per mile for any distance	15 cents.
22. Lowest rate of freight per ton per mile for any distance	$3\frac{3}{10}$ cents.
23. Average rate of local freight per ton per mile on roads operated by this company	No statistics.
24. Average rate of freight per ton per mile to and from other roads	No statistics.
25. Average rate of freight per ton per mile for all	No statistics.
Average rate of freight per ton per mile, products of this State	No statistics.
Average rate of freight per ton per mile, products of other States	No statistics.
26. Average number of cars in passenger trains (including baggage cars)	2
27. Average number of cars in freight trains—basis of eight-wheel	No statistics.
28. Average weight of passenger trains, including locomotives and tenders, in working order (exclusive of passengers)	No statistics.
29. Average weight of freight trains, including locomotive and tender, in working order (exclusive of freight)	No statistics.
30. Number of persons regularly employed by company, including officers	24
Average monthly pay of employés, other than officers	$55 00
Average monthly pay of engine drivers	100 00
Average monthly pay of passenger conductors	85 00
Average monthly pay of freight conductors	
Average monthly pay of baggage masters	65 00
Average monthly pay of brakemen, flagmen, and switchmen	65 00
Average monthly pay of section men	50 00
Average monthly pay of mechanics in shops	69 00
Average monthly pay of laborers	45 00

SONOMA VALLEY RAILROAD COMPANY.

Mileage, Traffic, Etc.

2. Rate of speed of express passenger trains, including stops	18 miles.
3. Rate of speed of accommodation trains, including stops	$10\frac{1}{2}$ miles.
5. Rate of speed of express freight trains, including stops	$10\frac{1}{2}$ miles.

6. Rate of speed of accommodation freight trains, including stops	10½ miles.
26. Average number of cars in passenger trains (including baggage cars)	3
27. Average number of cars in freight trains—basis of eight-wheel	8
28. Average weight of passenger trains, including locomotives and tenders, in working order (exclusive of passengers)	158,000
29. Average weight of freight trains, including locomotives and tenders, in working order (exclusive of freight)	165,100
30. Number of persons regularly employed by company, including officers	31
Average monthly pay of employés, other than officers	$57 60
Average monthly pay of engine drivers	100 00
Average monthly pay of passenger conductors	100 00
Average monthly pay of freight conductors	100 00
Average monthly pay of baggage masters	60 00
Average monthly pay of brakemen, flagmen, and switchmen	60 00
Average monthly pay of section men as foremen	60 00
Average monthly pay of laborers	47 50

SOUTH PACIFIC COAST RAILROAD COMPANY.

Mileage, Traffic, Etc.

1. Miles run by passenger trains		255,851
2. Rate of speed of express passenger trains, including stops		20½
3. Rate of speed of accommodation trains, including stops		
4. Miles run by freight trains		98,200
5. Rate of speed of express freight trains, including stops	12	
7. Miles run by other trains, and for what purpose (mixed)	9,750	
Switching	62,710	
Work	8,379	
		80,839
8. Total train miles run		434,890
9. Total number of passengers carried		1,130,835
Number of through passengers going east (or north)		12,559
Number of through passengers going west (or south)		10,492
Number of local passengers going east (or north)		549,655
Number of local passengers going west (or south)		558,129
10. Total passenger mileage, or passengers carried one mile		15,742,905
11. Passenger mileage to and from other roads:		
Average number of miles traveled by each local passenger		$12\frac{54}{100}$
Average number of miles traveled by each through passenger		80
Average number of miles traveled by each passenger, through and local		13.92
12. Number of tons freight carried (not including gravel)		$196{,}633\frac{671}{2000}$
Number of tons freight in this State, carried		See above.
13. Total freight mileage, or tons carried one mile		7,177,547
15. Highest rate of fare per mile for any distance (excluding one mile)		7⅕ cents.
16. Lowest rate of fare per mile for any distance (single fare)		½ cent.
17. Average rate of fare per mile (not including season tickets) received from local passengers on roads operated by this company		$1\frac{94}{100}$ cents.
Average rate of fare per mile received from local passengers on roads operated by this company, not including ferry or season tickets		$3\frac{24}{100}$ cents.
19. Average rate of fare per mile for season ticket passengers, reckoning one round trip per day to each ticket		$\frac{66}{100}$ cent.
20. Average rate of fare per mile for all passengers		2.02 cents.
21. Highest rate of freight per ton per mile for any distance		15 cents.
22. Lowest rate of freight per ton per mile for any distance		3 cents.
23. Average rate of local freight per ton per mile on roads operated by this company		8 cents.
25. Average rate of freight per ton per mile for all		8 cents.
26. Average number of cars in passenger trains (including baggage cars)		5
27. Average number of cars in freight trains—basis of eight-wheel		25
28. Average weight of passenger trains, including locomotives and tenders, in working order (exclusive of passengers)		78 tons.
29. Average weight of freight trains, including locomotive and tender, in working order (exclusive of freight)		140 tons.
30. Number of persons regularly employed by company, including officers		360
Average pay of employés, other than officers		$4 per day.
Average monthly pay of engine drivers		100 00
Average monthly pay of passenger conductors		85 00
Average monthly pay of freight conductors		65 00
Average monthly pay of baggage masters		60 00
Average pay of brakemen, flagmen, and switchmen		1 70 per day.
Average pay of section men		3 25 per day.
Average pay of mechanics in shops		1 70 per day.

CHAPTER IV.

CHINESE LABOR, AND CHINESE MODE OF LIVING.

I will not under this head discuss the Chinaman in any of the commercial avocations, but only as an element of labor.

I have had occasion at the different investigations held by me, to report upon the Chinese not only as to their commercial relations, but also their mode of living, and as an element of labor.

The reports made by me and presented to the various trade organizations, viz., shoe-makers, cigar-makers, and the horticultural society, fully and at large exhibit about as much as can be said upon this subject of Chinese labor.

It cannot be denied that we are now suffering from a vast influx of Chinese who are coming to this country for just one thing, the displacement of a higher grade of labor.

It cannot be denied that the inducement to Chinese immigration was to displace the higher grade of labor, and that this displacement has been the cause of great evil in our State.

This class of Chinese population is not a consuming one. In other words, if the hundred thousand Chinese laborers of our country were whites they would consume at least three times as much as the Chinese do, and thus create a local demand for three times greater production. At least two thirds of the clothing and personal effects of the Chinese are brought from China, so that I can say practically they add nothing to the wealth of the State by their consumption, and really all the wages paid them for their labor is sent out of the country.

Although the mode of living of the Chinese has been fully shown and explained in various reports from this office, I present the following tables:

RATES OF WAGES PAID TO CHINESE.

Class of Labor.	Maximum.	Minimum.	Average.	With or without Board.
Domestic servants	$25 00 per month	$18 00 per month	$21 50 per month	With.
Cooks	30 00 per month	10 00 per month	20 00 per month	With.
Laundrymen	12 00 per month	6 00 per month	10 00 per month	With.
Cultivators of soil	30 00 per month	25 00 per month	27 50 per month	With.
Farm laborers	25 00 per month	20 00 per month	22 50 per month	With.
Brick-makers	35 00 per month	25 00 per month	30 00 per month	Without.
Slipper-makers	5 00 per week	4 00 per week	4 50 per week	Without.
Bag-makers	6 00 per week	4 50 per week	5 25 per week	Without.
Miners	2 00 per day	1 50 per day	1 75 per day	With.
In canneries	1 25 per day	75 per day	1 00 per day	Without.
Boot and shoe-makers	1 75 per day	75 per day	1 25 per day	Without.
Cigar-makers	$4 to $12 per 1,000			Without.
Cigar-strippers	Paid by the piece			Without.
Fishermen	Nearly all on their own account			

The above table refers to their receipts. Their expenses are best expressed in the answers attached to the following questions:

COST OF LIVING TO CHINESE.

How much do they expend for rent, either per head or collectively, per month? $2 to $4.
How much do they expend for food, per head or collectively, per month? $5.
What percentage of the food are home products? 25 per cent.
What percentage of the food are imported from foreign countries? 75 per cent.
How much do they expend for clothing per head each year? $10 to $12.
What percentage of the clothing is of American manufacture? 20 per cent.
What percentage of the clothing is imported? 80 per cent.
How much of their yearly earnings are sent out of the country? 75 per cent.
What percentage to the amount of earnings? 75 per cent.

The following table shows the proportion of Chinese in other States and Territories where they form a notable element of the population:

States and Territories.	Number of Chinese to 100,000 Whites.
Idaho	11,646
Nevada	10,113
Oregon	5,832
Montana	4,988
Washington	4,741
Wyoming	4,702
Arizona	4,636
Colorado	320

The following table shows the number of Chinese, Japanese, and Indians (out of tribal relations) in each State and Territory. Indians under tribal relations are not included, but are the subject of a special inquiry by the Census Office:

States and Territories.	Chinese.	Japanese.	Indians.
Alabama	4		213
Arizona	1,630	2	3,493
Arkansas	133		195
California	99,000	86	16,277
Colorado	612		154
Connecticut	123	6	255
Dakota	238		1,391
Delaware	1		5
District of Columbia	13	4	5
Florida	18		180
Georgia	17		124
Idaho	3,379		165
Illinois	209	3	140
Indiana	29		246
Iowa	33		466
Kansas	19		815
Kentucky	10		50
Louisiana	489		848
Maine	8		625
Maryland	5		15
Massachusetts	229	8	369
Michigan	27	1	7,249
Minnesota	24	1	2,300
Mississippi	51		1,857
Missouri	91		113
Montana	1,765		1,663
Nebraska	18		235
Nevada	5,416	3	2,803
New Hampshire	14		63

STATES AND TERRITORIES.	Chinese.	Japanese.	Indians.
New Jersey	170	2	74
New Mexico	57		9,772
New York	909	17	819
North Carolina		1	1,230
Ohio	109	3	130
Oregon	9,510	2	1,694
Pennsylvania	148	8	184
Rhode Island	27		77
South Carolina	9		131
Tennessee	25		352
Texas	136		992
Utah	501		807
Vermont			11
Virginia	6		85
Washington	3,186	1	4,405
West Virginia	5		29
Wisconsin	16		3,161
Wyoming	914		140
Totals	129,333	148	66,407

During the fourth annual session of the National Convention of the Chiefs and Commissioners of the various Bureaus of Statistics of Labor in the United States, held at Trenton, New Jersey, June 3, 1886, which I attended, the following proceedings were had upon a resolution introduced by me upon the subject of Chinese:

> The convention now went into executive session, and Mr. Enos submitted the following resolution, advocating its adoption with much earnestness, on the ground of its being a national labor question:
>
> WHEREAS, There is a disposition to regard the question of Chinese immigration as a local one, affecting only the people of the Pacific Coast, and one in which the people of the Eastern States have no special interest, and concerning which many of them seem disposed to antagonize the sentiments of those who are brought into more immediate contact with it; therefore,
>
> *Resolved*, That the question of Chinese immigration, though primarily affecting the workingmen of the Pacific Slope, is not in any sense a local question. The Golden Gate is the gateway of the land, through which the countless hordes of barbarism threaten its invasion and inundation. The cheapness and easiness of the passage; the overcrowded millions of China; the rapacity and greed of capital, which now, as ever, seeks and invites the cheapest labor, in utter disregard of its effect upon the laborers of the country, and their families, dependent for their means of existence upon their stalwart but palsied arms; all conspire to make the Chinese invasion a matter of national concern, and the Chinese possession of California the peril of the country. It is a prominent and perilous factor of the portentous conflict between labor and capital. Opposition to Chinese immigration is not a question of race hatred, or blood prejudice; it is a question of life or death to our people; of bunks and barracks, or beds and homes for our laborers; of civilization or barbarism; of the low living and brutal customs of paganism, or those upward tendencies of well paid and properly regarded labor, which have produced in this country such splendid specimens of American manhood, as Roger Sherman, the shoe-maker, and Henry Wilson, the Natick cobbler, and Abraham Lincoln, the rail splitter. Opposition to Chinese immigration is not, as eastern preachers and sentimentalists would have it, opposition to men who have souls, but to an industrial movement that has no soul; a movement which threatens to bring our independent and self-respecting laborers down to the barbarous and disgusting economies of a race whose men live without wives, and whose women live upon the price of their prostitution. Opposition to Chinese immigration is not alone because they can live on less, and labor for less than the men who have families to support, schools and churches to maintain, and a country to care for and defend; but because they are an utterly alien and unassimilating people, alien in religion, alien in customs, alien in speech, alien in laws, alien in what they eat and what they wear, alien in how they live and where they are buried, alien in everything that goes to constitute an intelligent, independent, and self-supporting American citizen. It is alike the duty and the interest of all our people to make this question their own, and to extend the heartiest sympathy and speediest assistance to our fellow citizens of the Pacific Coast who are so immediately and terribly affected by this colossal calamity.
>
> Mr. Hutchins opposed the resolution, not from want of sympathy in its sentiment, for he believed all present were personally in favor of it, but he thought it was not within the province of this convention.

Messrs. Pond, Peck, Betton, Bishop, and Flower were of the same opinion.
Mr. Hutchins offered the following resolution, which was unanimously adopted:

Resolved, That the resolution offered by Mr. Enos be received and printed in the proceedings of this body, but that any action upon said resolution is not deemed to be within the province of this convention.

The following report of a special committee of the Board of Supervisors of the City and County of San Francisco gives an explicit account of the Chinese, their mode of living, etc., in "Chinatown" of said city and county. Said report is as follows:

REPORT OF SPECIAL COMMITTEE.

To the honorable the Board of Supervisors of the City and County of San Francisco:

GENTLEMEN: Your special committee, appointed on the second of February last to investigate and report upon that section of San Francisco commonly known as "Chinatown," have diligently prosecuted the labors thus assigned to them, and respectfully report as follows:

Without attempting to deal with the Chinese occupancy of any portions of the city outside of these limits, your committee confined their investigations to the locality embraced within the boundaries of California Street on the south, Kearny Street on the east, Broadway on the north, and Stockton Street on the west, covering twelve blocks in all. The drift of Chinese population has carried large numbers into blocks west of Stockton Street, but for economical reasons we have considered that it was unnecessary at the present time to go beyond the boundaries we have named for the purposes to be covered by this report.

Every floor and every room in Chinatown has been visited by your committee, or by the surveyors employed by them, and the conditions of occupancy of every room are fully described and set forth in the detailed report of the surveyors, which will be filed with this report.

The General Aspect of the Locality.

When your committee commenced their investigations, they made a general examination of Chinatown, visiting as often as they could, conveniently, houses, shops, and places of business in all parts of that locality, with the desire and intention of obtaining a correct idea of the general condition of things there, and the ordinary mode of life and practices of its inhabitants. Your committee were at that time impressed with the fact that the general aspect of the street and habitations was filthy in the extreme, and so long as they remained in that condition, so long would they stand as a constant menace to the welfare of society as a slumbering pest, likely at any time to generate and spread disease, should the city be visited by an epidemic in any virulent form. Your committee are still of the opinion that it constitutes a continued source of danger of this character, and probably always will, so long as it is inhabited by people of the Mongolian race. They are glad to be able to say, however, that the presence and operation of the surveyors since employed by them have had a most salutary effect—whether lasting or not—in inducing a "general cleaning up" where filth was the rule before, until a better general aspect is now presented than was the case at the time when this investigation began.

Knowing the peculiar habits of this people, it is not likely that this better condition of things will continue long, now that the operations of the surveyors employed by your committee have been concluded, or that anything better will follow than a relapse back into their more dense condition of nastiness, in which they apparently delight to exist. Nevertheless, something has been gained in the demonstration of the fact that by constant watching and close supervision the residents of Chinatown can be made to adopt somewhat better habits, and become less obnoxious—on this score, at least—as well as a lesser source of danger to the public health; and, therefore, it is perhaps well to inquire now whether it will not be wise to inaugurate new rules and a new policy, under which they must be brought, if they are to continue to remain among us.

In speaking thus of the improvement that has taken place in the general appearance of Chinatown since your committee commenced its investigations, we would not be understood as saying that the condition of the locality is in any sense what it should be in point of cleanliness. Our effort is to point out the fact that, as compared with what it was four months ago, it presents an improved aspect. The difference is one of degree, however, and even in its bettered aspect, in its byways, its slums, and its purlieus, its habitations, some of its places of business and places of amusements, it is to-day the filthiest spot inhabited by men, women, and children on the American continent.

All great cities have their slums and localities where filth, disease, crime, and misery abound; but in the very best aspect which Chinatown can be made to present it must stand apart, conspicuous and beyond them all in the extreme degree of all these horrible attributes, the rankest outgrowth of human degradation that can be found upon this continent. Here it may truly be said that human beings exist under conditions (as regards their mode of life and the air they breathe) scarcely one degree above those under which the rats of our water-front and other vermin live, breathe, and have their being. And this order of things seems inseparable from the very nature of the race, and probably must be accepted and borne with—must be endured, if it cannot be cured—restricted and looked after, so far as possible, with unceasing vigilance, so that, whatever of benefit, "of degree," even, that may be derived from such modification of the evil of their presence among us, may at least be attained, not daring to hope that there can be any radical remedy for the great, overshadowing evil which Chinese immigration has inflicted upon this people.

The Population of Chinatown.

No known method of census-taking has ever yet sufficed to furnish an approximate idea, even, of the numbers of our Chinese population. It is believed that the system which has been adopted in the conduct of this investigation will result in establishing a more correct conclusion on this point, so far as the twelve blocks covered by it are concerned, than can be obtained through any other method. Every building in this district has been visited, examined, measured, and delineated on the map of the district herewith furnished; the number of rooms which each contains, and the number of bunks or sleeping accommodations given in the report furnished your committee by its surveyors, and certainly with approximate accuracy; the number of men, women, and children of Chinese origin *who sleep* in this district, is now known, and is herewith given. On this basis, and through this system of computation, we are enabled to show what we believe is a fair return of the population of the district referred to. Whatever Chinese population there may be outside of this district (which is, of course, well known to be quite large), must still remain a matter of speculation and "guess-work" until such time as further measures may be adopted to ascertain the fact.

Your committee have found, both from their own and individual observations, and from the reports of their surveyors, that it is almost the universal custom among the Chinese to herd together as compactly as possible, both as regards living and sleeping rooms and sleeping accommodations. It is almost an invariable rule that every "bunk" in Chinatown (beds being almost unknown in that locality) is occupied by two persons. Not only is this true, but in very many instances these bunks are again occupied by "relays" in the daytime, so that there is no hour, night or day, when there are not thousands of Chinamen sleeping under the effects of opium, or otherwise, in the bunks which we have found there.

Besides these bunks, rolls of bedding, for use in sleeping on floors, and various other sleeping accommodations are found. All these bunks, rolls, etc., have been carefully noted and enumerated in their reports furnished to us by the surveyors; and from them we reach the following results of an estimated enumeration of the population of Chinatown.

For convenient reference, the numbers of the blocks named from time to time in this report are those by which the same blocks are distinguished in the books of the Assessor. The boundaries of the blocks so numbered are also given:

No. of Block.	Boundary by Streets.	No. of Bunks.
87	Broadway, Pacific, Kearny, and Dupont	163
88	Pacific, Jackson, Kearny, and Dupont	796
89	Jackson, Washington, Kearny, and Dupont	1,446
90	Washington, Clay, Kearny, and Dupont	976
91	Clay, Sacramento, Kearny, and Dupont	1,388
92	Sacramento, California, Kearny, and Dupont	741
110	Broadway, Pacific, Dupont, and Stockton	477
111	Pacific, Jackson, Dupont, and Stockton	1,989
112	Jackson, Washington, Dupont, and Stockton	2,828
113	Washington, Clay, Dupont, and Stockton	2,325
114	Clay, Sacramento, Dupont, and Stockton	1,287
115	Sacramento, California, Dupont, and Stockton	764
	Total number of bunks	15,180

Not only have your committee found that the rule is for two persons to each "bunk," and relays of sleepers through the day in many, if not most instances, but women and children seem also to be stowed away in every available nook and corner without reference to any special accommodation being provided for them. Taking, therefore, the total number of "bunks" and multiplying that total by two, must be at least a safe minimum estimate of the population in these twelve blocks, with every probability favoring the conclusion that an addition of perhaps twenty per cent would not more than cover the real number of Chinese inhabiting that locality.

On this basis, allowing two persons to a "bunk," and adding no percentage for excess from any of the foregoing reasons, we have a population in Chinatown of 30,360. And this, your committee believe, is the lowest possible estimate that can fairly be made.

Chinese Women and Children.

It is a less difficult problem to ascertain the number of Chinese women and children in Chinatown than it is to give with accuracy the male population. First, because they are at present comparatively few in numbers, and, second, because they can nearly always be found in the localities which they inhabit. This investigation has shown, however, that whatever may be the domestic family relations of the Chinese Empire, here the relations of the sexes are chiefly so ordered as to provide for the gratification of the animal proclivities alone, with whatever result may chance to follow in the outcome of procreation.

There are apparently in Chinatown but few families, living as such, with legitimate children. In most instances the wives are kept in a state of seclusion, carefully guarded and watched, as though "eternal vigilance" on the part of their husbands "is the price of their virtue." Wherever there are families belonging to the better class of the Chinese, the women are guarded and secluded in the most careful manner. Wherever the sex has been found in the pursuance of this investigation under other conditions, with some few exceptions, the rule seems to be that they are here in a state of concubinage merely to minister to the animal passions of the other sex, with such perpetuation of the race as may be a resultant consequence, or else to follow the admitted calling of the prostitute, generally of the lowest possible grade, with all the wretchedness of life and consequence which the name implies. That this is not mere idle assertion the following statement of the number of women and children found in Chinatown in the course of this investigation, and which includes probably nearly every one living in that locality, will, we trust, sufficiently demonstrate:

Living as families—Women, 57; children, 59.

Herded together, with apparent indiscriminate parental relations, and no family classification, so far as could be ascertained—Women, 761; children, 576.

Professional prostitutes and children living together—Prostitutes, 567; children, 87.

Chinese Prostitution.

This examination has led to the foregoing result in regard to the relation of the sexes. No well defined family relations have been discovered other than as shown, while the next classification seems to be a middle stratum between family life and prostitution, partaking in some measure of each, if such a condition of things can be possible.

The most revolting feature of all, however, is found in the fact that there are so large a number of children growing up as the associates and perhaps the protegés of the professional prostitutes. In one house alone, on Sullivan's Alley, your committee found the inmates to be nineteen prostitutes and sixteen children. In the localities habited largely by prostitutes, women and children, who apparently occupy this intermediate family relationship already alluded to, live in adjoining apartments and intermingle freely, leading to the conclusion that prostitution is a recognized and not immoral calling with the race, and that it is impossible to tell by a survey of their domestic customs where the family relationship leaves off and prostitution begins.

It is well, perhaps, for your committee at this point to lay before you and before the public all that they propose to say in this report upon the subject of Chinese prostitution here, and its effects upon the boys growing up in this community, and then to dismiss this disgusting branch of the subject. Fortunately, after presenting a statement of the number of professional prostitutes, their mode of life, and the district which they inhabit, as shown upon the accompanying map, all the other points are covered by the evidence elicited by the legislative committee appointed to investigate the Chinese immigration question in 1877, from which we quote as follows:

Rev. Otis Gibson testified before this committee that he had resided in China ten years, and had seen and learned a great deal about Chinese immigration. He said:

"The women, as a general thing, are slaves. They are bought or stolen in China and brought here. They have a sort of agreement to cover up the slavery business, but it is all a sham. The paper makes the girl say she owes you $400 or so, passage money and outfit from China, and has nothing to pay. I, being the girl, the man comes up and offers to lend me the money to pay you if I will agree to serve him, to prostitute my body at his pleasure, wherever he shall put me, for four, five, or six years. For that promise of mine made on the paper, he hands him the $400, and I pay the debt I owe you according to contract. It is also put in the contract that if I am sick fifteen days no account shall be taken of that, but if I am sick more than that, I shall make up double. If I am found to be pregnant within a month, you shall return the money and take me again."

Alfred Clarke, Esq., Chief Clerk of the Police Department, confirmed the testimony of Mr. Gibson as to the manner in which these Chinese women are obtained and brought here. He submitted a paper written in Chinese characters, which, translated, reads as follows:

"An agreement to assist the woman Ah Ho, because, coming from China to San Francisco, she became indebted to her mistress for passage. Ah Ho herself asks Mr. Yee Kwan to advance for her $630, for which Ah Ho distinctly agrees to give her body to Mr. Yee for service of prostitution for a term of four years. There shall be no interest on the money. Ah Ho shall receive no wages. At the expiration of four years Ah Ho shall be her own master. Mr. Yee Kwan shall not hinder or trouble her. If Ah Ho runs away before the time is out, her mistress shall find her and return her, and whatever expense is incurred in finding and returning her Ah Ho shall pay. On this day of agreement Ah Ho, with her own hands, has received from Mr. Yee Kwan $630. If Ah Ho shall be sick at any time for more than ten days, she shall make up by an extra month of service for every ten days' sickness. Now this agreement has proof: this paper received by Ah Ho is witness.

"TUNG CHEE.

"Twelfth year, ninth month, and fourteenth day." (About the middle of October, 1873.)

And, again, Mr. Clarke produced a second similar paper, which, translated, reads as follows:

"AN AGREEMENT TO ASSIST A YOUNG GIRL NAMED LOI YAU.

"Because she became indebted to her mistress for passage, food, etc., and has nothing to pay, she makes her body over to the woman Sep Sam, to serve as a prostitute to make out the sum of $503. The money shall draw no interest, and Loi Yau shall serve four and one half years. On this day of agreement Loi Yau receives the sum of $503 in her own hands. When the time is out Loi Yau may be her own master, and no man shall trouble her. If she runs away before the time is out, and any expense is incurred in catching her, then Loi Yau must pay the expense. If she is sick fifteen days, or more, she shall make up one month for every fifteen days. If Sep Sam shall go back to China, then Loi Yau shall serve another party until the time is out; if in such service she should be sick one hundred days or more, and cannot be cured, she may return to Sep Sam's place. For a proof of this agreement this paper.

"LOI YAU.

"Dated second, sixth month, of the present year."

Mr. Clarke testified that prostitution is carried on here under just such contracts as these, and that the last one was taken from a Chinawoman who had been brought in. He further testified, that when one of these women escapes she is followed and taken back by her owners. "If they fail, they generally have her arrested for larceny, and get possession in that way. They use the processes of our Courts to keep these women in a state of slavery. When they become sick and helpless, there are instances where they have been turned out to die. The bones of the women are not returned to China, as are the bones of the men."

James R. Rogers testified that he had been special police officer in the Chinese quarter four or five years; that the prostitutes "are held as slaves, bought and sold. They are held as prostitutes, and are obliged, by what they call their mother, the head woman or boss of the institution, to stand at the windows and doors and solicit prostitution. Most of the Chinese houses of prostitution are patronized by whites—by young men and old ones. I have taken boys of not more than ten or twelve years of age from out of these houses. The schedule of prices is such that boys can afford to go there and patronize them."

Dr. Toland testified that he was the founder of the "Toland Medical College," and a member of the Board of Health. "He had seen boys eight and ten years old with diseases they told me they had contracted on Jackson Street. It is astonishing how soon they commence indulging in that passion. Some of the worst cases of syphilis I have ever seen in my life, occur in children not more than ten or twelve years old. They generally try to conceal their condition from the parents. They come to me, and I help to screen it from their parents, and cure them without compensation. Sometimes parents, unaware of what is the matter, bring their boys to me, and I do all I can to keep the truth from them."

Asked what effect it must have upon this community if these Chinese prostitutes are allowed to remain in the country, he said: "It will fill our hospitals with invalids, and I think it would be a very great relief to the younger portion of the community to get rid of them."

Asked to what extent these diseases came from Chinese prostitutes, Dr. Toland said: "I suppose nine tenths. When these persons come to me I ask them where they got the disease, and they generally tell me that they have been with Chinawomen. They think diseases contracted from Chinawomen are harder to cure than those contracted elsewhere, so they tell me as a matter of self protection. I am satisfied, from my experience, that nearly all the boys in town who have venereal disease, contracted it in Chinatown. They have no difficulty there, for the prices are so low they can go whenever they please." He had never heard or read of any country in the world, where there are so many children diseased as there are in San Francisco; and, further, that "it is a most frightful condition of things. Generally they are improperly treated, and syphilis or gonorrhœa runs on from week to week, until stricture results: and that is almost as bad as constitutional syphilis, because it requires a long time to cure it."

Dr. J. C. Shorb testified that he was a physician and surgeon, and a graduate from the University of Pennsylvania. He said: "The presence of Chinese women here has made prostitution excessively cheap, and it has given these boys an opportunity to gratify themselves at very slight cost. I have had boys from twelve years up to eighteen and nineteen—any number of them—afflicted with syphilis contracted from Chinese prostitutes. The extent of the evil is very general, and I suppose my experience must be the experience of all the physicians in San Francisco in full practice."

There is a mountain of testimony of a similar nature, all of which might properly be quoted here; but it would be simply cumulative, and your committee do not consider it necessary to go into it further. We have shown that Chinese prostitution exists among us as the basis of the most abject and satanic conception of human slavery. That it is conducted upon the most inhuman principles. That our own laws are successfully invoked to shield, protect, and foster it. That it is the source of the most terrible pollution of the blood of the younger and rising generations among us, and that it is destined to be the source of contamination and hereditary disease among those who are to come after us too frightful to contemplate, and, possibly, already too strongly intrenched as an evil to be successfully modified, much less eradicated.

We do not desire to arouse any undue public excitement or indignation on this subject; but our duty is to state the facts as they exist, and yours to exercise all the cool and deliberate judgment that can be brought to bear upon it, in a calm and thorough search for the best remedy that can at present be applied, or the wisest action that can be taken in dealing with this branch of the Chinese question.

White Prostitution in Chinatown.

The investigations which have been carried on by your committee have developed another disgusting and surprising feature. It is in reference to white prostitution in that locality. The map accompanying this report shows in what sections and to what extent of area white prostitution exists in Chinatown. The number of degraded women who ply this vocation there is unknown. But the point that will impress itself more strongly upon the ordinary mind is that these women obtain their patronage almost entirely from the Chinese themselves. Their habitations seem to have been taken up in the Chinese quarter solely for this purpose, and their mode of life seems to be modeled after that of the Mongolian, to a larger extent than after the manners and customs of the race to which they belong.

Many, if not most of them, confirmed victims to the opium habit in one form or another, they present pictures of pallid wretchedness hard to parallel in any community where total depravity rules supreme, and their sex sinks to the lowest point of human degradation. The Chinese drug and opium stores at night usually contain numbers of these wretched beings seeking opium or medicaments for the physical diseases to which they are constantly subjected; and more wan, sad, hopeless, and wretched looking faces the human eye seldom encounters in the streets or slums of the most populous cities of the world.

This is a feature of prostitution in Chinatown with which it is difficult, and perhaps impossible, to deal. Your committee can only point out the conditions under which it exists as one of the numerous evils which attach to and grow out of the presence of the Chinese among us. It is one of the many counts in the indictment against the race, and upon which we hold them up for trial before the public opinion of our country, from which we bespeak a just and wise verdict. For the poor, wretched woman who enters this particular walk of life there need be no punishment other than her own miseries; no word of reproach, but all our pity. Let her "who enters here leave hope behind."

White Women Living with Chinamen.

Another surprising as well as disgusting feature developed in this investigation is the fact that there are numerous instances of white women living and cohabiting with Chinamen in the relation of wives or mistresses. In one instance where an example of this was found there was one white woman living among a large number of Chinese women and children—the mistress of one or more of "the little brown men"—who, when the place was visited by the surveyors employed by your committee, roundly berated them for thus invading the citadel of their domestic rights, and threatened various modes of punishment therefor. In one instance a Chinaman had assumed marital relations with a fair widow with several children by a Caucasian husband.

Instances of these examples of "assimilation" of the two races are as follows: At No. 900 and 902 Dupont Street, one white woman living with a Chinaman on the third floor; at 613 Jackson Street, second floor; at 708 Commercial Street, second story; at 708 Commercial Street, third story; at 710 Commercial Street, third story; at 718 Commercial Street, second story. There are in each of the foregoing one white woman and one Chinaman living together. At 740 Commercial Street, second story, and at 916½ Stockton Street, there are two white women in each place living with Chinamen.

Evasions and Defiance of Municipal Laws.

There is hardly a phase of life in Chinatown that does not furnish a striking example of constant violation of municipal laws. It may almost be said that the whole Chinese community exists in open defiance of the law, and, as a matter susceptible of clear demonstration, they are at present, and long have been, stronger than the law (as it is administered), to which we of other races are sternly held amenable. It becomes necessary for your committee to prove the affirmative of this proposition, and, once proved, it invites discussion of this proposition, viz.: If a race constituting one seventh, say, of the entire population of San Francisco is able to successfully violate and defy the local laws to which the remaining six sevenths are held amenable, what will be the effect when the ratio of the same race shall have increased until it becomes numerically stronger, as it assuredly will be if Chinese immigration is not finally and permanently restricted?

Your committee do not admit, however, that the present percentage of Chinese in our midst are stronger than the law, if the authorities, whose duty it is to administer the law, are equal to the occasion, and are furnished the necessary means and men to enforce it. As the case stands at present, the facts show that there is constant violation of the law, without any effectual attempt to enforce its penalties, and it will become the duty of this

Board, when the facts are placed before them, to endeavor to change the existing practice by the enactment of such municipal laws as may be necessary to restrict present abuses, and to see that existing ordinances are enforced for the accomplishment of like purposes. To assume that our local laws cannot be effectually enforced in the case of the Chinese is to admit that that race, which we so heartily despise, is stronger than we are, and to abandon the principles for which we are contending.

Violations of Sanitary Laws in Chinatown.

In a sanitary point of view Chinatown presents a singular anomaly. With the habits, manners, customs, and whole economy of life violating every accepted rule of hygiene; with open cesspools, exhalations from water-closets, sinks, urinals, and sewers tainting the atmosphere with noxious vapors and stifling odors; with people herded and packed in damp cellars, living literally the life of vermin, badly fed and clothed, addicted to the daily use of opium to the extent that many hours of each day or night are passed in the delirious stupefaction of its influence, it is not to be denied that, as a whole, the general health of this locality compares more than favorably with other sections of the city which are surrounded by far more favorable conditions.

It seems impossible to account for this condition of things upon any other theory than that of the constant fumigation to which Chinatown is subjected, as has already been suggested in this report. Open wood fires from cellar to attic, cigars, tobacco, and opium pipes, all contribute hourly clouds of smoke to the fumigation process, and probably prevent the generation and spread of zymotic diseases that otherwise could scarcely fail to rapidly decimate the Chinese population of San Francisco, and effectually adjust the Chinese immigration question without the aid of treaty or congressional intervention. These preventive influences can never be a sufficient guard against cholera or any other like visitation, however, and are not and cannot be sufficient to justify the municipal authorities in tolerating the unclean mode of life that prevails in Chinatown. This mode of life must always make this locality a threatening source of pestilential danger to the community at large whenever pestilence comes in any form, borne upon the wings of the wind, or stealing in, "like a thief in the night," by any other of the mysterious pathways which it too often thrids so silently, without warning of its approach, until it is upon us with its deadly influences.

Dr. A. L. Gibson, Medical Director of the United States Navy, and a man who ranks high in his profession, says upon this point:

"Where there are fresh air and dryness and cleanliness, there can be no cholera; and where there are not it will come in spite of proclamations and perfunctory quarantines. Fumigations and disinfections which mask putrescence and substitute medicinal smells for sickening stenches are as ridiculous as the noise of gongs and tom-toms, and exploding fire-crackers and gingals, by which the Chinaman hopes to frighten the devils who desolate his home and country, and worse than useless from the false sense of security which they give."

It is not wise nor is it the intention of your committee to excite undue apprehension in the public mind upon this subject. But it is both wise and a matter of public duty that the true condition of things should be known, in order that unseen but possible dangers may be guarded against so far as it may be in our power to do so. With this end in view we invite attention to the following facts:

The frequent custom with this people is to have the brick and mortar bench where cooking is carried on, the sink, always more or less filthy, and an open, filthy, bad smelling water-closet, all adjoining each other in the same room, or under the same cover. Frequently a space at the end of this cooking range—if we may call it so—is used as a urinal, the only outlet from which is the absorption of and seepage through some earth placed there for that purpose, while the intermingling odors of cooking, sink, water-closet, and urinal, added to the fumes of opium and tobacco smoke and the indescribable, unknowable, all-pervading atmosphere of the Chinese quarter, make up a perfume which can neither be imagined nor described. This is no exaggeration, nor is it a fancy sketch. It is one of the common features of life in Chinatown.

The details of the survey, which will be filed with this report, will furnish all the data that will be necessary to satisfy the most skeptical on this point; but what is far better, will be a visit to Chinatown itself, and to the habitations themselves, where such ocular and olfactory proofs as will present themselves to the visitor will leave no more to be added.

The municipal laws intended to protect the sanitary welfare of the city, among other things, provide as follows:

"*Order 1,587.*

"[Privy-vaults, Drains, etc., to be connected with Street Sewers, and Traps Constructed.]

"Section 4. No person shall construct or maintain, or suffer to be or remain upon his or her premises, or premises under his or her control, any privy, or privy-vault, cesspool, sink, or drain, without connecting the same by means of cement, iron-stone, or iron pipe, with the street sewer, in such a manner that it shall be effectually drained and purified, if there be a sewer in the street on which said premises may be situated with which the same can be connected. Every drain or branch sewer hereafter constructed which shall connect with a dwelling-house or building, or with any privy, privy-vault, or cesspool, shall be constructed of cement, iron-stone, or iron, and be provided with some apparatus or means by which such drain or branch sewer may be effectually flushed and cleansed; and shall also be provided with a trap or apparatus which will effectually prevent the escape of gases from the sewer into such dwelling-houses, building, privy, privy-vault, or cesspool, which trap or apparatus shall, in all cases, when practicable, be placed under the sidewalk and be so constructed and placed that it can be readily and conveniently examined and inspected. (As amended March 30, 1882, by Order No. 1,666.)

"[Privy-vaults, Construction of.]

"SECTION 5. No person shall construct, without the consent in writing of the Health Officer, any privy-vault on premises belonging to him or under his control, unless the walls and bottom of such vault be of stone or brick, laid in cement, and at least eight inches in thickness.

"[Privies, etc., when Foul or Offensive, a Nuisance.]

"SECTION 6. No person shall suffer or permit any premises belonging to or occupied by him, or any cellar, vault, privy, pool, sewer, or private drain thereon or therein, to become nauseous, foul, or offensive, and prejudicial to public health or public comfort."

One of the most important points developed in the whole course of this investigation, is the flagrant violation of the sections of Order 1,587, above quoted, which is constantly carried on in Chinatown, for which a radical remedy should be found, and for which property-owners themselves should be held responsible. There is, and can be, no possible excuse for these violations of the law. It involves the public health and public safety, and calls for immediate remedial action.

The instances where the water-closets, sinks, etc., discharge into open cesspools, and where there are other violations of the sections quoted, are more than numerous. Some few examples may be pointed out by way of illustration: 719 Sacramento Street, water-closet and cesspool in rear; 823 Sacramento Street, open cesspool in basement. In Oneida Place every second house has a sink and hopper running down to open box below and connected with sewer in center of court. Sewerage in rear of court, into which water-closets and sinks empty, is in center of court in box, and is open in several places.

In the building on Jackson Street, sometimes called "The Palace Hotel," and occupied by about 400 people, there are four water-closets in the center of the court on each of the floors, all running together below in one common cesspool, all open with no trap, and all in a horribly filthy condition.

At 616 Dupont Street, open cesspool in sub-basement under air-shaft, used as a urinal and receptacle for all the slops of the building. The same at 614½ Dupont Street.

At 646 Pacific Street there is "a public water-closet in the hall for the building and rear." The whole rear and hall is very filthy, open sewerage running across the north end, seething up through the ground, extending through the hall to Pacific Street.

In the basement on the east side of Bartlett Alley, in what is known as the "Dog Kennel," filth and its accompanying stenches reign supreme. A blind woman and several dogs and cats live in the kennel in a state of wretched squalor that baffles description, while the rear space is occupied by water-closets without traps, leading into what receptacle no one knows, the whole area and surroundings being wet, moldy, and rotten. The lowest grade of prostitution guards the entrance to this den on either side. and the hideous visages that peer through the wickets help to add to the general aspect of degradation and misery that reigns below.

The basement of the next building adjoining is a twin specimen in filth and methods of violation of the sanitary regulations which we have quoted.

At 714 Jackson Street, in the basement, occupied by seven Chinese prostitutes and two children, there are no water-closets, and the slops and filth generated in this underground slum are flung into the street as an extra generous contribution to the rotting garbage that daily accumulates there, or disposed of in other ways unknown to your committee.

At 727 Pacific Street there is a laundry on the first floor. The kitchen is in the court. An open hopper at the north end is the common receptacle for slops and the water-closets besides, and is very filthy and nauseating.

At No. 8, west side of Sullivan's Alley, there are several kitchens and water-closets with open hoppers, all without separating partitions, and the latter all open to the cesspools or sewers into which they lead. The foul odors that they exhale mingle with the Mongolian messes that simmer upon the adjoining cooking device, nauseating the visitor but apparently adding zest to the appetite of the Celestials who eat, drink, and sleep there.

At 707 Pacific Street there is a room in the rear on Sullivan's Alley, with urinal, kitchen, and water-closet all together for the building covering 711, 707, and 705 Pacific Street, and 1031, 1027, 1025, and 1023 Dupont Street. To say that it is filthy does not convey an idea of its condition. To say that its condition and arrangement openly violate the law is all that we need to burden you with in this report. The same arrangement and condition of things exists in the upper floor of the same building.

At 808 and 812 Clay Street there are repetitions of kitchens, water-closets, and filth, open from cesspool or sewer, to the rooms in which they are located, and all subject to the same comment and description already given.

At 616 and 614½ Dupont Street there are open cesspools, water-closets, and sinks, and at hundreds of other localities similar conditions exist. Briefly, there are filth and filthy conditions everywhere, violations of the ordinance we have quoted everywhere, realizations and revelations everywhere of a distinct definition of the term "Chinese stink-pots," that differ, perhaps, from the heretofore commonly accepted meaning of the term, but are none the less tangible as such new definition—all-pervading, though we may not see, feel, or hear them, but overwhelmingly apparent through the medium of the remaining senses of taste and smell.

Some day, when Pestilence shall fold her black wings and alight among us to gorge her lust for death, there will be such other tangible evidences of the dire influences that will grow out of this condition of things as will appeal in unanswerable anguish to our hearts as well as our senses, and lead to vain regrets that we have not long ago enforced the laws and corrected this terrible evil.

"*The Cubic Air Ordinance.*"

It is not too sweeping a declaration to make to say that there is scarcely a habitation in Chinatown in which the so called "Cubic Air Ordinance" is not constantly violated. This constant and habitual violation of the municipal regulation illustrates in the most forcible manner the truth of the assertion which we have already made, that the habits and mode of life among the Chinese here are not much above "those of the rats of the waterfront."

It is not the desire or intention of your committee to present any extreme case selected from any particular locality, to illustrate any feature of the peculiarities of Mongolian life in Chinatown, but rather to convey to the Board and to the public, as far as it is possible to do so, a fair idea of the condition of things in that locality, and a general comprehension of the mode of life of this class of our population.

Herewith we present some instances illustrating the *ordinary* habits of the Chinese laboring classes in the matter of sleeping and living accommodations. They are given as furnishing a fair average example, so far as we have been able to ascertain, of the disregard in which the so called "Cubic Air Ordinance" is held by the Chinese, and as possibly illustrating the hopelessness of attempting to enforce it—a point which will be discussed later:

STREET.	Number.	Floor.	Number of Occupants allowed under the Cubic Air Law.	Number of actual Occupants.
Dupont	814½	Sub-basement	9	32
Dupont	814½	Basement	21	70
Dupont	814½	First floor	7	46
Dupont	814½	Second floor	26	60
Dupont	714½	Third floor	34	68
Sacramento	817	Basement	6	24
Bartlett Alley		Basement	16	68
Bartlett Alley		First floor	6	14
Oneida Place		First floor, ten rooms	31	94
Brooklyn Place		First floor	4	24
Jackson	624	Basement	3	5
Jackson	628	Basement	3	14
Jackson	632	Basement	2	6
Jackson	632	First floor	3	16
Jackson	620	Basement	3	14
Jackson	622	Basement	4	20
Jackson	622	Basement	6	30
Jackson	622	First story	3	6
Jackson	615	Basement	3	16
Washington	737	Second story	3	8
Washington	735	Basement	10	34
Washington	733	Second story	4	12
Brenham Place	9	Second story	8	24
Brenham Place	9	Third story	8	18
Brenham Place	9	Fourth story	6	22
Clay	767	Second story	7	22
Clay	767	Second story	4	12
Clay	804	Second story	2	8
Clay	809	Basement	3	20
Clay	812	Second story	5	16

This may be taken as a fair type of the common manner of life in Chinatown among the ordinary laboring classes. There are places much more densely crowded, and some not as densely crowded. But this represents the prevailing rule, and the other extreme (about equally divided), the exception.

The atmosphere at night in these crowded dens—many of which, it will be seen, are in cellars—when the occupants are in possession, is something indescribably horrible; especially when vitiated by the smoke of opium and tobacco, the effluvia from surrounding filth, and the exhalations from the bodies of the celestials who inhabit them.

Descend into the basement of almost any building in Chinatown at night; pick your way by the aid of the policeman's candle along the dark and narrow passageway, black and grimy with a quarter of a century's accumulation of filth; step with care less you fall into a cesspool of sewage abominations with which these subterranean depths abound. Now follow your guide through a door, which he forces, into a sleeping-room. The air is thick with smoke and fetid with an indescribable odor of reeking vapors. The atmosphere is tangible. Tangible—if we may be licensed to so use the word in this instance—to four out of the five human senses. Tangible to the sight, tangible to the touch, tangible to the taste, and, oh, how tangible to the smell! You may even hear it as the opium-smoker sucks it through his pipe bowl into his tainted lungs, and you breathe it yourself as if it were of the substance and tenacity of tar. It is a sense of a horror you have never before experienced, revolting to the last degree, sickening, and stupefying. Through this semi-opaque atmosphere you discover perhaps eight or ten—never less than two or three—bunks, the greater part or all of which are occupied by two persons, some in a state of stupefaction from opium, some rapidly smoking themselves into that condition, and all in dirt and filth. Before the door was opened for your entrance every aperture was closed, and here, had they not been thus rudely disturbed, they would have slept in the dense and poisonous atmosphere until morning, proof against the baneful effects of the carbonic acid gas generated by this human defiance of chemical laws, and proof against all the zymotic poisons that would be fatal to a people of any other race in an hour of such surroundings and such conditions.

It is from such pest-holes as these that the Chinese cooks and servants who are employed in our houses come. Cleanly though they may be, in appearance, while acting in the capacity of domestic servants, they are nevertheless born and reared in these habits of life. The facility with which they put on habits of decency when they become cooks and servants simply adds other testimony to their ability to adapt themselves to circumstances when it is their interest to do so. But the instinct of the race remains unchanged; and when the Chinese servant leaves employment in an American household he joyfully hastens back to his slum and his burrow, to the grateful luxury of his normal surroundings, vice, filth, and an atmosphere of horror.

Opium Resorts in Chinatown.

The following table shows the number and location of the public opium resorts. The "opium lay-out" is found in nearly every sleeping-room in Chinatown, and is nearly as common as the tobacco pipe; but these dens are for the general accommodation of those who have no sleeping bunks and conveniences for opium smoking of their own, and who therefore frequent these resorts to indulge in the habit.

The bunks are occupied night and day, and the spectacle of pallid men in a condition of death-stupor, wrapped in the dirty rags which constitute their bedding, may be witnessed in these dens any day from 10 A. M. to 2 P. M.

STREET.	Number.	Floor.	No. of Bunks.	Remarks.
Sacramento	731	Basement	12	Filthy.
Clay	809	Basement	23	Filthy.
Dupont	616	Sub-basement	8	Twenty-four feet below the street line, and very filthy.
Waverly Place	34½	Basement	14	Filthy.
Spofford Place	23	First floor	10	Opium refinery in rear; filthy.
Washington	825	Basement	10	Filthy.
Washington	836	First story	11	Filthy.
Sullivan's Alley	7	First story	6	Filthy.
Dupont	918	Basement	12	Filthy.
Washington Place	26	Basement	19	Filthy.
Cooper's Alley		First story	8	Filthy.
Bartlett Alley	East side.	Basement	14	Very filthy.
Bartlett Alley	32	Rear first floor	3	Filthy.
Jackson	708	Rear basement	14	Filthy.
Jackson	818	Basement	13	Filthy.
Dunscombe Alley	East side.	Basement	12	Filthy.
Dunscombe Alley	East side.	Basement	12	Filthy.
Dunscombe Alley	West side.	Basement	11	Filthy.
Dunscombe Alley	West side.	Basement	10	Filthy.
Dunscombe Alley	West side.	Basement	11	Filthy.
Dunscombe Alley	West side.	Basement	14	Filthy.
Jackson	728 730	Basement	26	Filthy.
Pacific	727	First floor	4	Filthy.
Dupont	1001½	Rear basement	16	Filthy.
Jackson	626	Basement	7	Filthy.
Jackson	632	Basement	19	Filthy.

The use of opium is so general among the Chinese that no visitor to Chinatown, night or day, can enter many sleeping rooms without finding men indulging in the habit. Nor will the explorer travel far without finding them under every stage of its influence. down to the dead stupor, such as would seem to furnish fit subjects for the Coroner and the morgue, rather than as beings to whom life is ever to return again.

Violations of the Fire Ordinances.

If the prevailing rule of constant violations of the fire ordinances in Chinatown is to be longer tolerated, for the sake of consistency at least, if it were legally possible, there should be an additional section added, exempting the Chinese quarter from the operations of these ordinances, for it is true that they are utterly disregarded, if not defied; and we have failed to discover that any determined attempt is made on the part of the authorities to enforce them. Possibly it is not practicable to enforce them, and possibly it furnishes another illustration of the presumption that the Chinese are a law unto themselves, stronger than the municipal or statute laws, and stronger than the race which surrounds them. Herewith we present a diagram of the first floor of a building on Oneida Place. The fireplaces are shown as indicated, and are a fair type of the manner in which they are constructed all over Chinatown. The chimney, it will be observed, is practically an unknown convenience. A brick bench laid in mud mortar, in a window, upon a balcony, or any like place, upon which the fire for cooking is built, leaving the smoke free to escape as it will, is all that is necessary for cooking purposes. Sometimes this plan is varied by the substitution of a tin box or vessel filled with earth for the brick platform, but the uses and purposes of the chimney, cooking or other stoves or ranges, are apparently unknown. In no other part of the city, and by no other people, are such dangerous methods pursued; nor would they be long tolerated if they were. Considering the combustible nature of the surroundings, it is hardly less than a miracle that conflagrations are not constantly occurring, and that fire has not long ago swept Chinatown out of existence and a large section of San Francisco besides. The municipal law upon this subject is plain and explicit. It provides as follows:

"No person shall kindle or maintain any fire of charcoal, wood, or other combustible material, in or upon any open tin, metal can, or any earthenware vessel whatsoever, in any room, entry, or passage, or in any other part of any house in this city and county; or in any furnace or stove of any kind, unless the same be connected by means of a good sheet-iron flue or pipe, with a brick or earthen pipe chimney, to conduct the smoke and fire into said brick or earthen pipe chimney."

There is not a day in the year in which this order is not violated in hundreds and hundreds of instances. At the same time, the point which has already been alluded to in this report, viz.: that the constant fumigation to which Chinatown is subjected from these open wood fires, may be the source of prevention of zymotic diseases, should not be lost sight of. But, conceding that such is the fact, and that the risk and evil of these open fires be tolerated and the fumigation process be thereby preserved rather than to risk the possibility of disease growing out of their suppression, the fact stands out none the less clear-cut and striking that the very presence of these people among us compels the admission of the proposition that we cannot enact laws, general in their application, to which they can safely be subjected. Nor can we, on the other hand, enact special laws that shall apply alone to this or any other race of people; nor can we by any legislative action constitutionally exempt them from subjection to the general laws to which all other classes and races among us are amenable.

The paradox involved, then, in these contradicting propositions, is by the simple fact that in this, as in many other things, these people when they come among us are above and beyond the law, and so they must possibly remain. Stated briefly, the special point now under consideration is this: The law prohibits these open fires; if they are not suppressed they will constitute a standing menace from fire, and may at any moment involve the city in a disastrous conflagration. If they are suppressed, there is every probability that Chinatown will become the seat of zymotic or other diseases which may involve the public health of the city at large, and the sacrifice, possibly, of hundreds of lives annually. It is the choice of two evils—evils that the presence of this race among us force upon us, and which never can be wholly avoided so long as they are among us.

In the construction of privies, apart from the violations of the sanitary ordinances already referred to, the city ordinances relating to the fire limits, etc., provide that "privies or water-closets of wood" shall be constructed in a particular manner, and shall not "project over the line of any street, lane, alley, or place, and they shall not be used for any other purpose." No regard is paid to this provision of the municipal laws whenever it suits the convenience of occupants of buildings in Chinatown to ignore them. There are many instances that might be pointed out where this rule is violated.

The two Chinese theaters furnish striking examples of the audacity of the race in ignoring the law, and the impunity with which such violation is practiced. In both these theaters almost every specified provision of the fire ordinance relating to places of amusement is openly violated, even down to that clause of the ordinance which provides that no portion of a theater "shall be occupied or used as a hotel, boarding, or lodging house," etc. In the case of the Washington Street theater it is at once both boarding and lodging house, containing bunks for 150 persons, all of whom eat and sleep under its roof.

The Chinese Labor Problem.

The essentially American policy of a tariff for protection to home industry is not alone on trial as against the opposing doctrine of free trade. Protection against the "pauper labor of Europe" as a system of public policy may be advocated, upheld, and practiced as we will, but it is clear that the doctrine is absolutely nullified, and the laws that are enacted to support it are successfully and effectually evaded by the importation, not of the *products* of pauper labor, but of pauper labor itself, of a far lower grade than that of Europe, viz., the Asiatic.

The political party which claims to be the party of protection to home industry by means of a high tariff necessarily stultifies itself if it fails to set itself against the greater of these dangers, the importation of Asiatic pauper labor, as well as against the free importation of the products of European pauper labor. For it is clear that Asiatic labor here upon our own soil, which can exist here at a less cost for living than can even the pauper labor of Europe exist upon European soil, not only possesses a dominant advantage over home labor, but also over the "pauper labor of Europe" itself, about which we declaim so earnestly. If this "Asiatic pauper labor," tolerated here upon our own soil, can produce here any article of manufacture cheaper than the same article can be produced in Europe, the advantage is not alone the difference in the cheapness of the product, but in the tariff which is imposed on the article thus manufactured in Europe and imported here. Therefore the Asiatic laborer residing here literally commands the situation. The result of such a competition is indisputable. Either the American laborer must come down to a level with the imported "little brown man" in habits of life and desires, or he must become a helpless pauper himself.

This is not the gospel of the "sand lot;" it is the gospel of political truth, upon which all parties should agree who have the welfare of society at heart, and to whom humanity itself ought not to plead in vain.

Cool and dispassionate consideration of this great overshadowing question is now the necessity of the hour, uninfluenced by the senseless jargon of "The Chinese must go," or any other shibboleth of the demagogue. Planted here in this young, but already great metropolis, is a Mongolian population forming about one eighth of the entire community, and probably one fourth of the laboring classes, equal to the task of competition in any line of skilled or unskilled manufacture. Their habits and mode of life render the cost of support less than one fifth of that of the ordinary American laborer, who exercises what is commonly recognized as the strictest rules of economy and thrift. This first combing of the wave of Chinese labor is to-day in more than successful competition with the home workman here in the production of every article of clothing, cigars, and other like necessities and luxuries of life, to the extent that, practically, the occupation of the skilled home laborer is gone, indeed, even at this early stage of the contact.

This statement of the case has been presented heretofore in various forms, but it has too often been howled in insensate and unreasoning clamor from the "sand lot," instead of being proved by the medium of crystallized fact and the inexorable logic of demonstrated truth.

It is within the province and scope of this report to supply this "missing link" through the facts which have been collated in this investigation, and about which there can surely be no dispute, if human evidence is of value at all in the search for truth, hidden where it may be.

Your committee, then, apart from theorizing, invite the attention of the Board and of the American people to their exhibit of facts relating to this subject of Chinese labor here in San Francisco alone, and the inevitable result which must sooner or later be reached all over the land as the Chinese tide advances and sweeps competition to the winds.

It need not be said that the discussion of this phase of the question is useless now because of the treaty and the legislation which is supposed to prohibit Chinese immigration, for the fact is but too apparent to every resident of San Francisco that Chinese immigration is still flowing in in appalling numbers, and the treaty and the prohibitory legislation scarcely modifies the strength of the tide, much less prohibits. Therefore, it is more than in order at this time to analyze and discuss the effect of Chinese pauper labor upon the welfare of the American laborer and the American people.

Among the tabular statements forming an appendix to this report will be found one marked "Exhibit A," giving a list of the manufacturing establishments in Chinatown and the various lines of manufactured goods which are produced there. This exhibit forms in itself but a minor factor in the problem, since the great body of Chinese laborers in skilled and unskilled manufacture is employed outside of the limits of Chinatown, and, indeed, outside of the limits of the City and County of San Francisco. But what is taking place here will but too painfully illustrate the appalling character of the danger which this Asiatic invasion typifies. The lesson which that invasion ought to teach, through such exhibits as these, can only be nullified by the preaching of these blind fanatical theories which have heretofore made an idol of "the little brown man," but which are none the less a wicked abomination to the Christian mind than are the grotesque and hideous idols which form the objects of worship of "the little brown man" himself.

It appears from this exhibit that there are employed in Chinatown to-day, not less than 2,326 Chinese workmen, engaged in the manufacture of clothing of various descriptions, boots and shoes, leather, cigars, etc., all of which is produced for consumption here in competition with the American workmen engaged in the same line of manufacture. Most of this labor is carried on through the use of the best modern machinery, in the operation of which the Chinese workman becomes an adept in a short space of time. Machinery for the manufacture of boots and shoes in the large establishments operated by Chinese labor supplies a large share of the demand for the whole Pacific Coast. The Hop Kee Company, on Dupont Street, an establishment employing at some seasons of the year 300 men, finds a market for its goods as far east as Salt Lake City at present, and will, at no distant day, invade the country east of the Mississippi, giving manufacturers there an opportunity to become practically acquainted with the effects of "Chinese cheap labor," and the results which follow in its train.

In the manufacture of clothing, ladies' underwear, shirts, etc., 1,245 sewing machines are kept actively at work, all operated by male laborers with a skill that is equal to the best efforts of the American woman, as well as the American man, in this direction, and all run with such quick-handed, untiring energy, that it suggests one of the most curious physiological problems of the day to understand how a people, nurtured and fed as they are, can possess the vitality and physical force necessary to the results which they achieve in this direction.

Most of this labor is carried on by "piece-work," and to fill orders for large "down-town commercial houses" engaged in the sale of the class of goods thus produced. The heavy, strong-stitched, jean overalls, which find so large a market on this coast, are made by the Chinese workmen at the rate of about 55 cents per dozen pairs. The work thus produced—at a price which would reduce the American worker, male or female, to a lower level than the "woman, weary and wan" whose misery Hood depicted so graphically in "The Song of the Shirt"—the Chinaman thrives upon, and is prosperous and happy. But it is a prosperity and a happiness that is based upon a mode of life that a homeless cur upon the streets might not envy, upon which the American laborer could not exist until a succession of generations had so brutalized and blunted his race proclivities that he had degenerated into a condition worse than barbarism and become a curse to civilization, instead of what he is to-day, the vital strength of the nation.

Gambling in Chinatown.

We come now to the consideration of a phase of life in Chinatown which, for manifest reasons, your committee would gladly avoid referring to if it were not in their plain line of duty to do otherwise.

These reasons are, that in any fair presentation of the matter of gambling and the gambling dens in Chinatown a serious responsibility must be brought home to the Police Department, or the owners of the property where these dens are situated must accept the responsibility themselves. If the responsibility for the existing condition of things does not rest in one of these quarters, then it must be set down to the debit of a weak, inefficient public policy that has long prevailed in San Francisco, by which laws for the protection of the public health and public morals have either not been enforced or are yet not sufficient in themselves in the form of their enactment. In either case it is an unpleasant task for your committee to attempt to fix the responsibility; but it is their duty to state the facts, and, so far as possible, to suggest the remedy for what seems to be a great public evil.

Here, again, we are met with the most positive evidences that have yet been produced that the Chinese population among us openly defy the State and municipal laws. These laws are strong enough, as has been conclusively proved, to shut up gambling houses run by white men, and to make the occupation of the gambler completely amenable to the majesty of the law. It is not so in Chinatown. The appendix to this report—"Exhibit B"—furnishes a list of "iron-clad," barricaded gambling dens in Chinatown, which are veritable citadels and strongholds built to defy assault and to baffle police interference.

This list comprises about 150 places in all, the approach to which is through a series of plank and iron doors, in every instance with grated windows, cunningly devised trapdoors for escapes, and in many instances iron-clad walls or partitions. Many of these doors bear the marks and indentations of the sledges of the police who have assailed them from time to time, which attack has usually been successfully resisted, however, long enough to enable every evidence of the gambling games carried on within to be destroyed before the assailants were admitted. The convenient water-closet, or kitchen fire, always adjacent to and forming part of these dens, furnish ready means to destroy the tan markers or lottery devices, and innocent Celestials, sitting "childlike and bland," apparently in wonder why they have been disturbed, and against whom no charge can be successfully maintained in the Courts, are all that is found within when entrance has once been gained. Such is the statement of the officers of the Police Department, and such statement seems to be generally borne out by the facts.

On the other hand, considering how numerous the gambling dens are, considering that many of them open direct upon the street, it would seem that there must be negligence somewhere to enable the business to be carried on so successfully, in view of the fact that the gambling houses kept by men of our own race have been so energetically and effectually dealt with.

But this proposition is again met and answered, and answered with much force, by the statement that the number of men in the police force, and the means with which the department is provided, are not sufficient to enable Chinatown to be effectually patrolled and the gambling houses thoroughly watched and raided. Further, that, so long as property-holders will permit these barricaded gambling hells to be constructed, so long as they will permit their houses to be thus converted into fortresses for the purpose of defying the law, and, further, so long as the municipal authorities will permit property-holders thus to allow these Chinese tenants to misuse their property to the public injury and for the purpose of violating the law, so long the evil must exist, and nothing less than a police force large enough to constitute a constant army of occupation must be kept in Chinatown, with battering-rams and dynamite, if necessary, to enable them to open and raid these dens of vice. And to this, it seems to your committee, there is no answer. It brings home the blame for this condition of things to the municipal authority itself, which, by a proper display of its own power, at whatever cost it may be involved, *can* and *must*, sooner or later, try conclusions with Chinatown and the Chinese, and make them amenable to the law in everything.

"*The Heathen Chinee.*"

"The little brown man," as he is designated by one of the most prominent members of the United States Senate, and a representative of a State that is commonly assumed to stand in the fore-front of human progress, is considered by many Christians as a most fitting subject for missionary work and conversion to Christianity. It is possibly no legitimate part of the work assigned to your committee to examine and report upon this branch of the subject, and possibly it is their duty to do so. From our point of view it seems but proper to us that the people throughout our country should have as full a knowledge as possible of what thirty-five years of constant attrition of Christianity and idolatry has resulted in, as exemplified in the history of the Chinese in San Francisco. It is proper that the world should be informed as to whether Christianity advances or retreats before Chinese idolatry when brought into immediate contact with each other; whether the Christian religion is to be the gainer or the loser; whether the human souls that are to be lost or saved are to change in their relations of ratio to each other, according to the doctrines of Christianity; whether it is or is not worth while to permit them to continue to come among us in the beneficent hope that "the true faith" may be more widely promulgated and souls be saved that must otherwise be eternally lost.

For true missionary work your committee have the most unbounded respect and sympathy. For efforts in this direction that the stern experience of the past 35 years have demonstrated by cold, practical results to be more than sterile and barren, and for those who have wasted their labor in the field, your committee can entertain no other sentiment than that of charitable pity. For those who, in spite of every proof of its utter uselessness, continue to be the advocates of Chinese immigration with this "hope of conversion" doctrine as one of the main reasons and justification of their action, we have nothing but contempt and disgust.

So far in San Francisco "the heathen Chinee" has, in the slang parlance of the day, "got in his work" with the same irresistible force as that with which Boston's other "slogging" champion has always displayed in his ring encounters. And Senator Hoar, and his followers, who would fain open wide our gates to the "little brown man," that he may be converted to Christianity and share in the blessings of American citizenship, may possibly find food for new reflection by a careful study of some of the naked facts which your committee have been enabled to present upon this branch of the subject. In this view of the matter, then, your committee consider it their duty to invite public attention to the following facts:

The proofs, as developed by this investigation and which are so plain as to be beyond question, are these: The Chinese brought here with them and have successfully maintained and perpetuated the grossest habits of beastiality practiced by the human race. The twin vices of gambling in its most defiant form, and the opium habit, they have not only firmly planted here for their own delectation and the gratification of the grosser passions, but they have succeeded in so spreading these vitiating evils as to have added thousands of proselytes to the practice of these vices from our own blood and race. The lowest possible form of prostitution—partaking of both slavery and prostitution—they have planted and fostered to a lusty growth among us, and have innoculated our youth not only with the virus of immorality in its most hideous form, but have, through the same sources, physically poisoned the blood of thousands by the innoculation with diseases the most frightful the flesh is heir to, and furnishing posterity with a line of scrofulous and leprous victims that might better never have been born than to curse themselves and mankind at large with their contagious presence. They have successfully overridden and defied the laws of morality in every form, and the statutory laws of the State and municipality. They have driven the American laborer to the wall and taken the bread from the mouths of thousands of deserving families, while all that missionary work has done among them, all that contact with Christianity has accomplished in the line of conversion to "the true faith," is as imperceptible and as slow in its results as is the influence of the smallest comet that ever blazed into view in planetary space upon the great orbs that traverse their appointed pathways within the solar system to which they belong. Let us see if this is not the fact.

First, as is shown upon the map accompanying this report, the "joss house" is proportioned to population, even more common in Chinatown than are the edifices of the Christian church in other portions of the city. Idols of the most hideous form and feature squat upon their altars, from which license, in the belief of the Chinaman, sufficient to justify crime or vice of any degree may be had for the asking. Idols that typify, not the precepts of morality taught by Confucius, carved and created by the mechanical fancy of the most skillful Mongolian artist into every conceivable distortion of feature and limb, more frequently represent and give license to the practice of a vice, than a virtue to be inculcated and lived up to. Even the "Goddess of Prostitution" sits enthroned upon her altar in more than one joss house in San Francisco, and licenses her votaries to the practice of nameless indulgences and the most bestial gratification of their sensuous lusts. Let the skeptic who views this statement as an exaggeration or misrepresentation of fact visit the joss houses of San Francisco and he will no longer doubt; for it is the truth.

While the Chinese have thus planted their idolatry among us with all its attendant vices, while they have undermined the morals and the physical health of our youth, and defied our laws, what has Christianity to show, through the aid of its missionaries or otherwise, in its conflict with Asiatic heathenism, whether it be in the advance of Christian morals or the Christian religion?

In morals, nothing! And no one can possibly so pervert the truth as to maintain otherwise. In religious teachings let the evidence of the missionaries themselves speak for itself.

The Rev. Otis Gibson, who testified before the legislative committee upon the occasion heretofore referred to, said that he had been a missionary of the Methodist Episcopal Church in China ten years. That he had long been doing missionary work here among the Chinese. That from information obtained from the books of the Six Companies he thought there were about 150,000 Chinamen in California.

Asked, "How many of these Chinamen have become Christians—Roman Catholics as well as Protestants?" He answered, "I could not give you statistics of that exactly. I don't know what the statistics of the Roman Catholic Church are. They have very few proselytes."

Q. "What do you suppose your converts amount to? Can you approximate how many?" A. "I suppose that in this city there may be in all one hundred."

Again, he was asked by Mr. Eggers: "I would like to have you give us your experience as a missionary with these people?" A. "Our success with this people has been slow. They begin by going to school, and we gradually teach them to have a disgust for idolatry. That is the first point reached. During my labors *I have baptized thirty-five or thirty-six persons.*"

Q. "In how many years?" A. "Since 1871, properly speaking."

This was in 1878, so that the net product of Mr. Gibson's labors in 7 years was 35 or 36 Mongolian souls saved by baptism—provided that it proved that the religion with which they were thus dyed was of fast colors and did not subsequently wash out, by a new baptism of their own election.

Rev. A. W. Loomis testified that in 17 years of missionary work in San Francisco his school had "received 80 members; deducting 20 who have been dismissed, and we have 63."

Let us hear what others testify to upon this question:

Wong Ben, an intelligent Chinese interpreter, testified before the legislative committee as follows:

Q. "Do you know any Christian Chinamen?" A. "Yes."

Q. "How many?" A. "10 or 15. Some believe little. Some just go to school to learn to read; that is all. Some believe everything."

Lee Kan, interpreter for the Bank of California, testified as follows:

Q. "Do you know any Chinese Christians?" A. "Yes, sir."

Q. "Are you one?" A. "No, sir."

Q. "Are these men real Christians or are they only pretending to be?" A. "I cannot tell."

Q. "As a rule, are they not such persons as would become Christians for good salaries, and good positions?" A. "I guess so."

Q. "Do you hear any of them say that Sunday school is a good place to learn English?" A. "Yes, sir."

Q. "Did it strike you that they were more anxious to learn English than to get religious teaching?" A. "Yes, sir."

Now, post the ledger and ascertain how the account stands: 35 or 36 souls saved by the missionary work of Mr. Gibson, 80 by Mr. Loomis, making 115 in all, deducting nothing for backsliders, in a maximum period of 17 years, that being the term of the administration of Mr. Loomis! Against this, thousands of young men debauched and diseased for life by reason of their presence among us; innumerable young men and young women confirmed in the opium habit from the same source; the laboring classes deprived of work and impoverished, their children graduated in the school of "hoodlumism;" the laws set aside and defied; a filthy and disgusting mode of life set up by a clannish population in the fairest and best portion of the city, and made a constant menace to the welfare of the community by reason of the danger from fire and disease that will some day spring from that locality. All this to offset the salvation of a few score of souls of beings whose miserable lives *and* souls ought not in the aggregate to bear a feather's weight against the deep damnation of the curse they have inflicted upon our race, and the ruin and everlasting misery they have brought upon thousands—if the Christian religion be "the true faith" by which human souls are to be saved.

All this while their joss houses are still illuminated by the dim lamps that rest upon their altars, and the oil of which is never burned out. The smoke of their incense still wends its way upward, the joss sticks of fate still invite the superstition of the fatalist, and Chinese idolatry remains; not alone unshaken and full of vigor, but, in the contest thus far with the Christian religion upon these shores, it has beaten down the barriers interposed against it, and laughed to scorn the labors of the missionary.

So far, it is the victor, in full possession of the field. So far, Christianity has beaten against it with as little effect and as little purpose as the waves of the Pacific, with their sweep of thousands of miles to give them force, accomplish when they thunder and break against the rocky and jutting headlands of our own Golden Gate.

There never was a more wicked and shameful exhibition of detestable, narrow-minded bigotry than that which seeks to justify Chinese immigration by linking it with a scheme for the salvation of souls. The beasts of the field, the vagrant dogs that the Poundmaster gathers upon the streets to put to death by drowning, are vastly better worthy of our commiseration than the whole Mongolian race when they seek to overrun our country and blast American welfare and progress with their miserable, contaminating presence.

Let the would-be religious enthusiasts of the tribe who would feed the cannibal with texts from the Bible as a cure for his propensity to dine off of human flesh, and scatter tracts in Borrioboolagha as food for the starving, and who believe in the power of Christian contact to wrestle with Chinese idolatry, come here and study this question as your committee have studied it, and they will return cured of the mind malady with which they are now afflicted, or be entitled to life support and care in any idiot asylum in the land. So much for the "salvation" side of the Chinese question.

The Chinese as Murderers.

The spectacle of the past few weeks, of police officers stationed at night at each end of the alleys leading slumward in Chinatown, searching the persons of the Chinese who enter and depart therefrom for the purpose of discovering concealed weapons, is edifying. It has grown out of a murder which was not long ago committed near one of these alleys, and as it was the work of the assassin's deadly knife, and has so far baffled all effort at discovery, the police authorities, in the most praiseworthy manner, are endeavoring to prevent a similar recurrence and possibly discover a clue to the murderous Mongol now in hiding.

This brings before your committee the subject of "unpunished crime" in Chinatown, upon which it is proper that such facts as have come to our knowledge should be laid before you.

Not only does the cunning and utter unscrupulousness of Chinamen enable them to evade our laws, but the evidence is conclusive that they have well organized tribunals of their own which punish offenders against themselves when it is their interest to punish, but which never punish those who violate the laws of the city or the State.

It has been said of them, with great force and truth, that they "are not only not amenable to law, but they are governed by secret tribunals unrecognized and unauthorized by law. The records of these tribunals have been discovered, and are found to be antagonistic to our legal system.

"These tribunals are formed by the several Chinese companies or guilds, and are recognized as legitimate authorities by the Chinese population. They levy taxes, command masses of men, intimidate interpreters and witnesses, enforce perjury, regulate trade, punish the refractory, remove witnesses beyond the reach of our Courts, control liberty of action, and prevent the return of Chinese to their home in China without their consent. In short, they exercise a despotic sway over one seventh of the population of the State of California.

"They invoke the processes of law only to punish the independent action of their subjects, and it is claimed that they exercise the death penalty upon those who refuse obedience to their decrees.

"We are disposed to acquit these companies and secret tribunals of the charge of deliberate intent to supersede the authority of the State. The system is inherent and part of the fiber of the Chinese mind, and exists because the Chinese are thoroughly and permanently alien to us in language and interests. It is nevertheless a fact that these companies or tribunals do nullify and supersede the State and National authorities. And the fact remains that they constitute a foreign government within the boundaries of the Republic."

Such were the conclusions arrived at by the legislative committee in 1876. And they fairly justified their conclusions by the proofs which they elicited in the course of their investigations. We cannot better illustrate this than to quote from them at length. They say:

"That we have not overstated the facts, we beg to refer briefly to some of the testimony of reputable witnesses, given under the sanctity of an oath before this committee.

"James R. Rogers, a San Francisco officer of intelligence and experience, testifies as follows (see volume of testimony herewith transmitted, p. 61):

"A. 'I do not know of my own knowledge that such a tribunal exists [secret Chinese tribunal]. I only know that when a Chinaman swears differently from what they want him to his life is in danger. They sometimes use our Courts to enforce their orders, just as policy may direct. They have no regard for our laws, and obey them so far as they do only through fear.'

"D. J. Murphy, District Attorney of the City and County of San Francisco, and one of the ablest and most experienced criminal lawyers in the State (now one of our Criminal Court Judges), testifies as follows (Evidence, pp. 82 and 83):

"Q. 'In your official capacity, have you been brought in contact with these Chinese?' A. 'Yes, sir; I have looked on my docket for two years, and I find that of 700 cases that I examined before the Grand Jury 120 were Chinese, principally burglaries, grand larcenies, and murders—chiefly burglary. They are very adroit and expert thieves. I have not had time to examine for the last two and a half years, but the proportion has largely increased during that time.'

"Q. 'Do you find any difficulty in the administration of justice where they are concerned?' A. 'Yes, sir. In capital cases, particularly, we are met with perjury. I have no doubt but that they act under the direction of superiors, and swear as ordered. In many cases witnesses are spirited away, or alibis are proven. They can produce so many witnesses as to create a doubt in the minds of jurymen, and thus escape justice. In cases where I have four or five witnesses for the prosecution, they will bring in ten or fifteen on the part of the defense. They seem to think that numbers must succeed, and it very frequently so happens. It frequently occurs that before the Grand Jury, or on preliminary examination, witnesses swear so as to convict, but on the trial they turn square around and swear the other way. I have heard it said that they have secret tribunals where they settle all these things, but I know nothing of that. It is my impression that something of the kind exists, and I think they sometimes use our Courts to enforce their decrees. I have had to appeal to Executive clemency for pardon for Chinamen sent to State Prison by false swearing, under circumstances which led me to believe them to have been the victims of some organization of that kind.'

"Q. 'Innocent men can be convicted?' A. 'Yes; and I have no doubt innocent men are convicted through the medium of perjury and 'jobs' fixed up on them. I have had doubts, during the last three months, in cases of magnitude involving long terms of imprisonment.'

"Q. 'Among reputable lawyers of this city who have had experience with Chinese testimony in the Courts, what value has that testimony, standing by itself?' A. 'By itself, and without being corroborated by extrinsic facts or white testimony, it is very unreliable.'

"Mr. Ellis, Chief of Police of the City of San Francisco, and who has been attached to the police force of that city for 20 years, testifies as follows (Evidence, p. 112):

"'That it is generally believed that the Chinese have a Court where differences are settled, and that if, in secret, it determines to convict or acquit a Chinaman on trial before our Courts, that judgment is carried out. In a great many cases I believe they have convicted innocent men upon perjured evidence.'

"Mr. Charles T. Jones, who for several years past has been the able and efficient District Attorney for Sacramento County (the county in which is located our State Capitol), testifies as follows (Evidence, pp. 124 and 125):

"A. 'During my term of office I have had considerable to do with Chinese criminals, and always have great difficulty in convicting them of any crime. I remember well the case of Ah Quong, spoken of a few moments ago by Ah Dan. At the time I was defending three parties charged with kidnaping, and I had Ah Quong as interpreter, knowing him to be honest and capable. The circumstances of the case were these: A Chinaman wanted to marry a woman then in a house of prostitution. She desired to marry him, and he went with two of his friends to the house. She went with them. They drove out of town to get married, when the Chinaman who owned her heard of it and started some officers after her. She was arrested and surrendered to these Chinamen, with instructions to bring her into Court next day. I had this man to interpret for me, being well satisfied that she would swear that she was not being kidnaped. The next day the owners brought into Court a woman whom the defendants informed me was not the one at all, but another. The attorneys for the other side insisted that it was, believing the statements of their Chinamen to that effect. The case was postponed for two or three days, when it was shown that the woman offered was not the one taken away. This interpreter told me they would kill him as sure as these defendants were not convicted. We went out of the Court-room, and he told me he was afraid to go on I Street. I told him not to go, then, but I did not think they would trouble him. Half an hour afterwards he was brought back, shot in the back, and a hatchet having been used on him mutilated him terribly. This was in broad daylight, about 11 o'clock in the morning, on Third and I Streets, one of the most public places in the City of Sacramento. There were hundreds of Chinese around there at the time, but it was difficult, in the prosecution of the case, to get any Chinese testimony at all. It happened that there were a few white men passing at the time, and we were enabled to identify two men, and they were convicted and sent to the State Prison for life, after three trials. They attempted to prove an alibi, and after swearing a large lot of Chinamen they said they had twenty more. The Chinese use the Courts to gain possession of women. Sometimes it happens that where a man is married to a woman they get out a warrant for his arrest, and before he can get bail they have stolen the woman and carried her off to some distant place. I have had Chinamen come to me to find out how many witnesses I had in cases. If they found out, they would get sufficient testimony to override me. Before I was District Attorney I have had Chinese come to me to defend them, and ask me how many witnesses I wanted, and what was necessary to prove in order to acquit.'

"Q. 'Do you often find that upon preliminary examinations and before the Grand Jury there is enough testimony to warrant a conviction, but on the trial these same witnesses swear to an exactly opposite state of facts?' A. 'Very frequently.'

"Q. 'To what do you attribute that?' A. 'I attribute that to the fact that they had tried the case in Chinese Courts, where it had been finally settled. I have records in my office of a Chinese tribunal of that kind, where they tried offenders according to their own rules, meted out what punishment they thought proper, etc. These records were captured in a room on I Street, between Fourth and Fifth. I had them translated by an interpreter from San Francisco, and used them on the trial of the robbery cases. The records recite that the members enter into a solemn compact not to enter into partnership with a foreigner; that a certain man did so, and the company offers so many round dollars to the man who will kill him. They promise to furnish a man to assist the murderer, and they also promise, if he is arrested they will employ able counsel to defend him. If convicted, he should receive, I think, $3 for every day he would be confined; and in case he died, certain money would be sent to his relatives. These records appeared in evidence, and were admitted; also, a poster that was taken from a house, offering a reward for the killing of this man. This poster was placed on a house in a public street. Being written in Chinese, of course they alone knew its contents, and informed us of them.'

"Matt. Karcher, for many years past Chief of Police for the City of Sacramento, testifies as follows (Evidence, pp. 128 and 129):

"Q. 'Do you know anything about their putting up offers of rewards upon walls and street corners, written in Chinese, for the murder or assassination of given Chinamen?' A. 'Yes. Of course I could not read Chinese, but I secured some of these posters, and had an interpreter from San Francisco come up here and interpret them. They were rewards for the murder of some Chinamen who did something contrary to their laws. They have their own tribunals, where they try Chinamen, and their own laws to govern them. In this way the administration of justice is often defeated entirely, or, at least, to a very great extent. I know this, because I was present at a meeting of one of their tribunals about seven years ago. There was some thirty or forty Chinamen there, one appearing to act as Judge. Finally, the fellow on trial was convicted, and had to pay so much money, as a fine for the commission of the offense with which he was charged. Generally their punishments are in the nature of fines; but sometimes they sentence the defendant to death. In cases in the Police Court we have often found it difficult to make interpreters act. They would tell us that they would be killed if they spoke the truth; that their tribunals would sentence them to death, and pay assassins to dispatch them. About two years and a half or three years ago Ah Quong was killed. During the trial, at which he was interpreter, there were a great many Chinamen. I stationed officers at the doors, and then caused each one to be searched as he came out of the room, the interpreter having told me that he feared they would murder him. Upon these Chinamen I found all sorts of weapons—hatchets, pistols, bowie-knives, Chinese swords, and many others. There were forty-five weapons in all, I think, concealed about their persons in all kinds of ways. The interpreter testified in that case, and half an hour after leaving the Court-room he was brought back, shot and cut with hatchets. He was terribly mutilated, and lived only a few moments after being brought to the station-house. The murderers were arrested, but attempted to prove an alibi, and had a host of Chinese witnesses present for that purpose. Although there were some hundreds of Chinese present at the time of the murder, the prosecution was forced to rely upon the evidence of a few white men, who chanced to see the deed committed. We were opposed at every turn by the Chinamen and the Chinese companies. As a general thing it is utterly impossible to enforce the laws with any certainty against those people, while they will themselves use our laws to persecute innocent men who have gained their enmity. They seem to have no idea concerning the moral obligation of an oath, and care not for our form of swearing.'

"Mr. Ellis, Chief of Police for San Francisco, testified as follows (Evidence, p. 112):

"Q. 'What are the difficulties in the way of enforcing laws in cases where the Chinese are concerned?' A. 'The Chinese will swear to anything, according to orders. Their testimony is so unreliable that they cannot be believed.'

"Q. 'What is the greatest difficulty in the way of suppressing prostitution and gambling?' A. 'To suppress these vices would require a police force so great that the city could not stand the expense. It is difficult to administer justice because we do not understand their language, and thus all combine to defeat the laws.'

"Q. 'What is their custom of settling cases among themselves, and then refusing to furnish testimony?' A. 'It is generally believed to be true that the Chinese have a Court of Arbitration where they settle differences.'

"Q. 'After this settlement is made, is it possible to obtain testimony from the Chinese?' A. 'If in secret they determine to convict a Chinaman, or to acquit him, that judgment is carried out. In a great many cases I believe they have convicted innocent men through perjured evidence.'

"Mr. Davis Louderback, for several years past Judge of the Police Court of San Francisco, testifies as follows (Evidence, p. 93):

"Q. 'What do you know about the habits, customs, and social and moral status of the Chinese population of this city?' A. 'I think they are a very immoral, mean, mendacious, dishonest, thieving people, as a general thing.'

"Q. 'What are the difficulties in the way of the administration of justice where they are concerned?' A. 'As witnesses their veracity is of the lowest degree. They do not appear to realize the sanctity of an oath, and it is difficult to enforce the laws where they are concerned for that reason. They are very apt, in all cases and under all circumstances, to resort to perjury and the subornation of perjury. They also use our criminal law to revenge themselves upon their enemies, and malicious prosecutions are frequent.'

"An Chung testified:

"Q. 'What do the Chinamen do with anybody who testifies in Court against the women?' A. 'Ah Geo, Wong Woon, and Ah Fook put up money to kill him.'

"Q. 'Do you know whether any paper is ever put up, offering money to kill Chinamen?' A. 'Yes; I saw them.'

"Q. 'Have they threatened to kill you if you testify?' A. 'Yes. I am a little scared.'

"Q. 'What are you afraid of?' A. 'Afraid shoot me.'

"Q. 'Do you know of anybody being killed?' A. 'Yes.'

"Q. 'What for?' A. 'One boy he testify against women, and they kill him with a knife.'

"Ah Gow sworn:

"MR. HAYMOND: 'Can you speak English?' A. 'Yes, sir.'

"Q. 'How long have you been in San Francisco?' A. 'One year.'

"Q. 'How long in California?' A. 'Three years.'

"Q. 'Where have you lived?' A. 'At Halfmoon Bay.'

"Q. 'What did you work at?' A. 'Making cigars.'

"Q. 'For white people?' A. 'No; for a Chinaman—Ah Wah.'

"Q. 'To what company do you belong?' A. 'Ning-yeung.'

"Q. 'Do you know anything about threats being made against Chinamen for testifying in American Courts?' A. 'Ah Geo, Bi Chee, and Wong Woon say they shoot me.'

"Q. 'What for?' A. 'They say I pick out prostitutes in Court.'

"Q. 'Are you a witness now?' A. 'Yes, sir.'

"Q. 'Do they threaten to shoot you if you tell the truth?' A. 'Yes, sir.'

"Q. 'Do you know anything about notices being posted up offering rewards for killing men?' A. 'Yes. I have seen them.'

"Ah Dan sworn:

"MR. HAYMOND. 'How long have you been in California?' A. 'Almost ten years.'

"Q. 'From what part of China did you come?' A. 'Back of Canton.'

"Q. 'How old are you now?' A. 'I believe I am 28.'

"Q. 'What have you been doing since you came to California?' A. 'Cooking in kitchens and working in restaurants.'

"Q. 'Have you been living with Americans most of the time?' A. 'Yes, sir.'

"Q. 'Have you ever been interpreter in the Police Court?' A 'Yes, sir.'

"Q. 'Have you any fears about testifying here and telling all you know? Are you afraid?' A. 'I ain't much afraid. I came up here to swear, and I must tell all I know.'

"Q. 'Have ever any threats been made against you for testifying in the Police Court, or for interpreting truly?' A. 'Yes, sir; I am afraid because Chinamen got too much to gas about. Because one got convicted he think it all a put up job by me. In Sacramento City two interpreters killed.'

"Q. 'You say there were two interpreters killed in Sacramento?' A. 'Yes, sir; one was Ah Quong, and one Ah Gow.'

"Q. 'How long ago?' A. 'I wasn't in California the first one; Ah Quong, two years ago.'

"Q. 'What was he killed for?' A. 'Because he interpreted in Court. Chinamen thought he ought to have American man get Chinaman clear. They thought he had power to do it, but he couldn't do it and they killed him.'

"Q. 'If you are interpreting in Court, and you don't get a man clear, will they kill you?' A. 'No, sir; I am not afraid when I do what is right.'

"Q. 'Have they threatened to kill you when you did not get Chinamen clear?' A. 'No; not yet. Sometimes they get talking on the street about gambling-houses on I Street, and Chinamen blame me for stopping them.'

"Q. 'What do they threaten to do—threaten to kill you?' A. 'Talking about killing me.'

"Q. 'Do you know District Attorney Jones?' A. 'Yes, sir.'

"Q. 'Did you tell him last week that some of them threatened to kill you?' A. 'Yes, sir; some of them. A man came to me a few days ago and told me they were going to kill a Police Court interpreter, advising me to leave the city, because he said somebody would come and kill me; some men had put up rewards, and some men whom I did not know were coming from San Francisco to kill me. I was before the Grand Jury and explained the game of 'tan' and for this they put up a reward, and I am to be killed by three men from San Francisco I don't know. The reward offered for my life is $500 or $600. I have heard of rewards of this kind being put here and elsewhere. I have not seen any here, but have in San Francisco. They are in Chinese, and posted up, saying that these men will make agreement, if some man kill another, to pay the murderer so much money. These agreements for murder are red papers written in Chinese, and say they will give so much money on condition you kill so-and-so, naming the person. If the murderer is arrested, they will get good counsel to defend him. If he is sent to prison, they will pay him so much money to recompense him, and if he is hung they will send so much money to his relatives in China.

"Q. 'Did you go to officer Jackson and ask him not to subpœna you, if he could help it, in the Hung Hi case?' A. 'Yes. I said to him, I don't know about the case. If you put me on the stand, and it don't go as they want it, they will blame me.'

"Q. 'Didn't you tell him you were afraid they would kill you?' A. 'I did tell him so.'

"Q. 'You were afraid?' A. 'Yes, sir. I told Charley O'Neill some put up money to kill me. He told me not to fear—to keep a lookout for myself. In case I testify here to all I know, I'm afraid they will kill me.'

"Lem Schaum, a Christian Chinaman, educated and speaking English well, testified before the committee as follows:

"Q. 'Do you know anything about notices of rewards being posted up in Chinese quarters in San Francisco or here for the punishment of certain men—a notice of this kind: '$500 or $600 will be given for the assassination or murder of some Chinaman?' A. 'I do. That is a Chinese custom. When members of a company do anything against the rules of that company they are punished. Suppose one member of a company comes to me and says: Go and steal a woman from a Chinaman, and I do so for him; because I favor him. his enemies prove I stole the woman, and put up a reward of $500 or $1,000 to have me killed. That is the way they do.'

"Q. 'Do they post their reward up publicly?' A. 'I think not. I think they do that in secret.'

"Q. 'Has it been your experience that these secret judgments were carried into execution?' A. 'They pop it to you every time.'

"Q. 'Almost every time a judgment is entered that a man shall die, and they offer so much money to have him killed, he is killed?' A. 'Exactly.'

"Q. 'They take every advantage?' A. 'Yes, sir.'

"Q. 'That is regarded as a death sentence?' A. 'Yes, sir. The man knows he has to die, but gets out of the way if he can.'

"Q. 'That makes it difficult for any Chinaman, if he is so disposed, to protect women?' A. 'Yes, sir.'

"Q. 'If a Chinaman takes a woman to the Mission, that sort of a reward will be offered?' A. 'Yes sir; most likely.'

"Q. 'Do you know of their custom of settling cases that get into the Courts; for instance, a Chinaman is arrested for kidnaping one of these women; do you know anything about their settling that among themselves and keeping the testimony away from the Courts?' A. 'I believe they do that.'

"Q. 'They have some sort of a tribunal in which they settle this thing for themselves?' A. 'Yes, sir.'

"Q. 'Have they a tribunal which punishes offenses against their customs?' A. 'Yes, sir. For instance, suppose I should march myself out and kill a Chinaman; I am brought before the company and made to pay a fine; they take the money and send it back to the family of the killed party to support his mother.'

"Q. 'If you kill a member of the See Yup Company, the See Yup Company will determine, through this tribunal, that you shall pay so much money?' A. 'Yes, sir.'

"Q. 'Suppose you pay that money?' A. 'Then I will be all right.'

"Q. 'They would not try to punish you by law?' A. 'No, sir.'

"Q. 'Suppose you refuse to pay the money?' A. 'I must go through the American Courts.'

"Q. 'And they will convict you?' A. 'Exactly.'

"Q. 'If you do pay the money they will protect you against the American laws?' A. 'They let the whole matter drop.'

"Q. 'And keep witnesses out of the way?' A. 'Yes, sir.'

"Q. 'Is it impossible, then, to administer justice, under our laws, to this Chinese population?' A. 'Exactly; it is impossible.'

"Charles P. O'Neill, twenty years a policeman in Sacramento, testified upon the same occasion as follows:

"Q. 'Do you know anything about the murder of the first interpreter?' A. 'Yes, sir. He belonged to the Ning Yeung Company, which broke off from the See Yup Company. He was considered as a pretty bad sort of man, for he was going after some Chinamen pretty lively. He was in the habit of assisting to make convictions, trumping up false charges, etc.'

"Q. 'How do you know they were false?' A. 'They proved to be so afterwards.'

"Q. 'How was he removed?' A. 'They sent to China for a man to come here and kill him. Letters were sent to this Chinaman at Folsom, where he was living, and also telegraphic dispatches, warning him that he was to be murdered. He immediately came to Sacramento City and went into a gambling house. He was sitting down, leaning over the table, and this man that was to kill him was standing opposite. This fellow walked behind the interpreter and shot him. As he fell he shot him a second time and then walked into the street. This was about 6 o'clock in the evening. He walked about 40 steps up the street. He then crossed the street and walked about 150 feet further. Then he threw his pistol in a doorway, and went probably 75 feet further, and jumped down into a yard and disappeared. He went to China and was there pretty nearly a year, when he came back and died in San Francisco, just about the time we discovered his whereabouts. Before he did this killing he had gone to China. He was then sent for by the companies and came back. He was in this State only three or four days when he killed his man.'

"Q. 'What reason had they for wanting this man murdered?' A. 'There was a white man murdered in Amador County by some Chinese in his employ. He was a Mr. Griswold, a wealthy ditch owner. The Chinese fled to Marysville. Ah Gow, the interpreter, was living there then, and he went to white men and said: 'The murderers of Mr. Griswold are in a wash-house across the street. Arrest them and we will make the reward.' The men were arrested, taken to Amador County, and hung. That was why Ah Gow was killed.'

"Q. 'Do you know what company brought this man out?' A. 'No, sir. I only learned that from the Chinese a year after the murderer left. The head of one of the companies in San Francisco was arrested for conspiracy and brought to Sacramento. On the preliminary examination he was discharged. He was a very old man, and was the man who presided at the meeting at which the reward was offered for the murder.'

"Q. 'When was this?' A. 'Twelve years or more ago. Professional fighters are in the constant employ of the companies. These fighters committed several murders here some time ago, but we could not catch them. Several were arrested, but nothing could be proved. The Chinese told me they had settled the thing in their own tribunals, and that ended it.'

"F. L. Gordon testified that he had for some years been publishing a Chinese newspaper. He knew of cases where men had been hired to kill others.

"'The first was Ah Suey, a member of the Wang-Tung-Sing Society. He did something contrary to their rules in regard to the collection of money. I was in Ah Suey's house the very day he was killed. He knew there was a reward offered for his death, and he had not gone out for some days. He told me he was going to collect some money, and would go to China in a sailing vessel. I told him I heard there was a reward offered for his death, and he had better look out. During the day he went into Washington Alley thirty or forty feet, when he was shot in the back and instantly killed.'

"Q. 'Who offered the reward?' A. 'I heard that the society offered it. I think the amount offered was $800.'

"Q. 'Have you seen rewards of that kind posted up?' A. 'Yes, sir; they are written on red paper.'

"Q. 'Mention some other cases.' A. 'A Chinaman on Jackson Street was sent for by Chinamen, to whom he had loaned money, and was told that if he would go to a certain room on Jackson Street they would pay him. Two men waited for him there, and they killed him.'

"Q. 'Was there any evidence of a reward having been offered for his death?' A. 'I heard it spoken of in this way before it happened: That there would be money paid for his death. I was in a house two days before the killing, and there heard the matter spoken of. I am perfectly satisfied that his death was the result of a reward.'"

In all these evidences of unpunished crime perpetrated by the Chinese in California, in these evidences of a prevailing system of murder encouraged and sanctioned by their companies, tribunals, or societies, we are, of course, but repeating what has been told before, and with which the public have heretofore been made familiar. Grouped in this manner and in this connection, more concisely stated than when scattered through a volume of reports of investigations which cover a wide variety of questions, it is equally as valuable as any new testimony of a similar character would be for our present purposes. These purposes are to convince the Board and the people of the nation that these people are born and reared in savagery as well as vice, and that there is no grade of crime that they cannot and will not perpetrate for hire, our laws and our officers of the law being, meanwhile, in most instances, powerless to prevent or to bring them to punishment. In itself alone it is good and sufficient reason why they should be shut out from coming to and living upon American soil. Add it to the long list of other equally forcible reasons, it leaves the pro-Chinese advocate without a shadow of argument to longer continue the controversy involved in the Chinese immigration question.

The Chinese Children and the Public Schools.

We have shown that there are 722 children of Chinese parentage in Chinatown. Most if not all of these were born here, and are, to all intents and purposes, "native Americans." Though "native" they are not "to the manner born," because in every attribute of juvenile life they are Mongolian, as much so as if born in the province of Canton. The very exclusiveness and clannishness of the Chinese has so far preserved these children from contact with the Caucasian race, and not one word of English, or any other language than Chinese, can they articulate. In the drift of life it is quite possible that some of these later on may be brought in their younger years sufficiently in contact with the English-speaking Christian world to imbibe some of its habits and acquire some knowledge of the language.

But what results will follow? Will assimilation begin, and race mixture begin, with a mingling of Caucasian and Mongolian blood, and a new addition be thus made to the strain of American blood mixture to add one more thread to the intricacy of the present race problem that is to be worked out on our shores? To follow this inquiry and to indulge in speculation on this point forms no part of our duty at the present moment, however interesting and important it may be in the broad consideration of the Chinese question.

The point is, what shall we do with these Chinese children born upon our soil, though partaking in no respect of the proclivities and habits of any other known race except those of their own progenitors? And this opens the question that has often been agitated as to their admission to the public schools, and their right, under the law, to share the benefits to be derived from the public school fund. We have shown that there is no distinct line of demarcation—here at least—between domestic life and prostitution. We have shown that the painted harlots of the slums and alleys, the women who are bought and sold to the slavery of prostitution, are surrounded by children in some instances, and intermingle freely with the border class of family life where other children abound. We have shown that to all outward intents and purposes prostitution such as this, and with these surroundings, is a recognized feature of the economy of Mongolian life, in San Francisco at least. What, then, shall be said if the doors of our school houses are to be opened to admit children reared in such an atmosphere? What, indeed, shall be said of the proposition to educate them separate and apart from children of other races, and how can we with consistency deny them this right? Speaking no language but the Chinese, born and nurtured in filth and degradation, it is scarcely probable that any serious attempt could be made to mingle them with the other children of our public schools without kindling a blaze of revolution in our midst. And again, by what right, constitutional or statutory, can we set apart separate schools and a separate fund for their education and maintenance? And yet something must be done with them, some action must be taken to rid them of their race proclivities and habits if we would protect posterity from unlimited evil consequences. Here there may well be a field for true missionary work and a problem that will tax the wisdom and patience of mankind to solve. If the immigration of the race were effectually stopped, the riddle would be less intricate to deal with. But if it is to continue, even under the conditions of misnamed "restriction" which at present exist, how to deal with this constantly increasing number of Mongolian children, born and nurtured in such conditions of immorality and degradation, becomes indeed a more serious problem than any which the American people have ever yet been called upon to solve, not excepting the abrogation of African slavery and the horrors which attended its achievement.

If these children could be separated from their parents and scattered among our own people, away from the populous centers, the question involved would be, perhaps, easy of adjustment. The laws of nature and of men prohibit this, while the laws of morality, and the law of self-protection, must compel our own people to sternly prohibit them from mingling with our children in the public schools, or as companions and playmates. What, then, we again ask, is to be done with the Chinese children, born upon our soil, and that are yet to be born, in a ratio coequal in its increase with the increase of immigration? To this inquiry there seems to be but one answer. Chinese immigration must stop—absolutely stop! For, it is beyond the ingenuity of men to deal fairly with this phase of the question, except by a reversal of the laws of nature. And a violent separation of children from parents as fast as they are born, and delivering them over to our own race for education and a new order of life, is a proposition not to be thought of. So, then, while the conclusion which your committee have arrived at as to the best method of dealing with the Chinese here among us, and those which are to come after, as a local remedy for the evils which their presence now inflict upon us, are in their judgment wise and practical, the real remedy is the eventual stoppage of Chinese immigration, by such absolute, autocratic congressional legislation as shall make it physically impossible for the Chinaman to land upon our shores, except, perhaps, in a commercial capacity alone, or as a student seeking the advantages of our educational institutions. Such legislation, perhaps, cannot be secured until the eastern mind is educated on the Chinese question as have been the minds of the people upon this coast. And the best way to accomplish that end is to so deal with the Chinese here by local laws, made to be enforced, so as to drive them from our midst to mingle with eastern communities, and to educate them by contact with their presence, as they have educated us through the same process, up to a realizing sense of the frightfully disastrous results growing out of their presence among them. Until such results as these can be reached—be it at an early or a late day—what we shall do with the Chinese children is a question that may well rest in abeyance. Meanwhile, guard well the doors of our public schools, that they do not enter. For, however hard and stern such a doctrine may sound, it is but the enforcement of the law of self-preservation, the inculcation of the doctrine of true humanity, and an integral part of the enforcement of the iron rule of right, by which we hope presently to prove that we can justly and practically defend ourselves from this invasion of Mongolian barbarism.

The Chinese as Taxpayers.

We have searched diligently, so far, to find some good that the community at large derives from the presence of the Chinese among us. We do not have to go far to ascertain the fact that, as a cheap laborer, he is a source of profit to a few manufacturers; but when we try to ascertain how much or in what direction he contributes to the material or moral welfare of the community, the search is in vain, the results nil.

"But surely," the world will ask, "you have more than thirty thousand Chinese in San Francisco; they must contribute a reasonable share toward the support of the government and the public institutions of the city as taxpayers?" Let us see how this is. And here again the evidence is at hand in the respect of the legislative committee already quoted from. They say:

"Mr. Badlam, Assessor of San Francisco, testifies (Evidence, p. 82): 'The population of San Francisco is about two hundred and fifty thousand; of that about thirty thousand are Chinese. The Chinese pay about one three thousandths part of the taxes.'

"The committee addressed circular letters to each County Assessor in the State, and from returns received, the assessed value of all property, real and personal, assessed to Chinese in this State does not exceed $1,500,000. The rate of State tax is 64 cents on each $100 in value, and if the whole tax was paid, the revenue derived by the State from the property tax laid upon property held by Chinese would not exceed $9,600.

"The assessed value of all the property in the State is, in round numbers, $600,000,000.

"The total population of the State is about seven hundred and fifty thousand, and the Chinese population is more than one sixth of the whole.

"The Chinese population, amounting to at least one sixth of the whole population, pays less than one four hundreth part of the revenue required to support the State Government.

"The State appropriates $10,000 per month for the support of the State Prison, the earnings of the prisoners falling that much short of maintaining the prison. It will be seen that the net cost to the State for each prisoner is about 30 cents per day; and this without taking into consideration the cost of prison buildings.

"The net cost to the State of keeping 198 Chinese prisoners in the State Prison is not less than $21,600 per annum, a sum $12,000 in excess of the whole amount of the property tax collected from the Chinese population of the State."

So much for the Chinaman as a taxpayer. Where, then, may we look to find a single good derived from his presence among us? It is a question your committee cannot answer, and one that will stagger the ingenuity of the warmest admirers and defenders of the race, when they enter upon the labor of inquiry in this direction.

Relations and Responsibilities of Property Owners.

Chinatown occupies that portion of San Francisco which, geographically and topographically, is by far the fairest and naturally the most valuable section of the city. It was the section which naturally attracted the attention of the early pioneers, and there they located their offices and their homes. The advance guard of the Mongolian army saw that the location was good, and they advanced upon and captured it. Its capture was but a work of form, for civilization retreats instinctively from contact with the race, with the same feeling of horror that the fair and innocent maiden would exhibit in shrinking from the proffered embrace of an unclean leper.

Under such circumstances the property owner had no alternative but to accept the Mongolian for a tenant, and make the best of the situation. Up to this point the property owner in Chinatown is beyond criticism. And when property owners on the outskirts of Chinatown continue to yield possession to the race, as tenants, as the Chinese cancer eats its way westward, to them no blame can attach, for it is that or a sacrifice of their property as a source of income. The blame for this condition of things lies with Chinese immigration in itself, for which the nation, and not the property holder in San Francisco, is on trial.

But as we proceed further with the consideration of this branch of the subject, the property owner frequently appears in a less creditable position. He has had no special reason to regret the occupation of his premises by Chinese, in so far as the rate of revenue derived therefrom is concerned; for that revenue, if your committee are credibly informed, has been materially larger than could have been obtained from any other class of tenants. When, therefore, he permits his premises to be transformed into barricaded gambling dens, opium joints, kennels of prostitution, and sinks of vice of the lowest possible description; when he permits cesspools, bad connections with the sewers, or open sewage to exist upon his property, he becomes *particeps criminis* in this great wrong against civilization, and should be held strictly accountable for his share in the transaction. The property owner in Chinatown must be made to feel his responsibility in this matter before Chinatown can ever be brought to a level with common public decency.

Even to-day, while this is being written, the owner of the property at No. 806 Dupont Street, is erecting and completing a brick building across which, upon the first floor, 25 feet from the front wall, a plank partition is built, 3 inches in thickness, to which boiler iron ⅜ of an inch thick is bolted across the entire face of the partition, while the door is constructed in like manner, with all the adjuncts necessary to enable it to resist attack and siege. Its uses and purposes are, of course, to make secure, in open defiance of the law, the gambling den that is to be run within.

As long as the municipality of San Francisco tolerates such abuses and such violations of the law, so long must we hold our peace when the world points the finger of adverse criticism, and asks: "Why do you not put your own house in order in the matter of dealing with Chinese before you ask the aid of the nation to suppress these wrongs?"

How long would property owners in any other part of the city be able to convert their buildings into such citadels of public defiance for the accommodation and defense of the faro dealer or gambler of any class? How long would public opinion or the public authorities permit such a state of things to continue? And yet it has, for 30 years and more, been carried on with open impunity in Chinatown, and the example of the iron-clad fortification which we have here referred to is but one of many. For this the property owner certainly ought to be held responsible and made amenable to the law.

Thus, with its filth, its odors, its vices, and the general repulsive character of its people, Chinatown stands to-day a barrier against the advancement of the city northward and westward. It is the moral purgatory through which all must pass who inhabit, visit, labor in, or own property in those sections of the city, out of which they do not pass, however, cleansed by the contact, but nauseated and disgusted, and perchance defiled by Mongolian filth or disease. We must look to the property owner for his full share of responsibility for this condition of things and his fair contribution toward its modification and prevention.

Conclusions and Recommendations.

We have thus presented for your consideration and for the consideration of the public the salient features of the mode of life, effect upon home labor, habits, industries, vices, and contempt of local laws of Chinese in Chinatown. It clearly appears that the present and prospective condition of things calls for a more energetic and better defined line of policy than San Francisco has heretofore displayed, and the adoption and enforcement of such measures as will bring this people under the same control as that which is now exercised over other citizens generally.

We cannot shut our eyes to the fact that the treaty and the restriction Act constitute no effectual barrier as yet against Chinese immigration. The tide may not be flowing in upon us as rapidly nor with the same volume as before, but the cry is "still they come," and the problem of Chinese immigration is not yet solved. Moreover, it is far better to face the fact that through British Columbia on the north and Mexico on the south the march of the Mongolian cannot be effectually stayed, except by such congressional legislation and such an expenditure of public moneys as shall render such a result physically impossible of accomplishment; and we must meet the issue as it is presented and settle the question of how best to deal with the Chinaman when once he is among us; how best protect ourselves from the baneful effects of his presence.

The right of protecting ourselves, the right of holding the Chinese to the same responsibilities under the laws that other citizens are held, cannot be disputed. The fact that the race is one that cannot readily throw off its habits and customs; the fact that these habits and customs are so widely at variance with our own, makes the enforcement of our laws and compulsory obedience to our laws necessarily obnoxious and revolting to the Chinese; and the more rigidly this enforcement is insisted upon and carried out the less endurable will existence be to them here, the less attractive will life be to them in California. Fewer will come, and fewer will remain. The very race proclivities which we thus abhor may be converted into a better safeguard against Chinese immigration than any law of Congress or any treaty, if these race proclivities which are sure to run counter to our laws and our system of morals are held sternly in check at whatever cost to the State or to the city.

Compel the Chinamen, by municipal laws which are not only enacted but enforced, to live like our own race; prevent them from burrowing and crowding together like vermin; enforce cleanliness in mode of life; break up opium dens and gambling hells; restrict the number of inhabitants in any given block in the city; enforce upon this people, so far as may be possible by every legitimate method that can be devised, a cost of living that shall approach as nearly as possible that of the ordinary white laborer. Take away from the Chinaman by such methods as these the largest possible part of the profits of his earnings as they accrue now from his present mode of life, and thus exhaust every effort to bring him to the level of the at present fearfully handicapped American laborer, and California, or San Francisco at least, will soon cease to be attractive as a place of abode, and a less profitable field of labor for the Chinaman than it is at present. Scatter them by such a policy as this to other States, and let other States take home to themselves the full measure of the extent of the curse of Chinese immigration when they shall have felt the evil as we feel it here. Well devised, well considered, and firmly enforced municipal laws that will bring about such results as these will accomplish more in one year than declamations from the "sand lot" and bursts of public indignation can accomplish in a century.

This Chinese question is large enough to deserve cool and dispassionate handling, and to call for the highest possible degree of statesmanship in dealing with it.

So great an authority as Baron Alexander Von Hubner, formerly the Austrian Embassador to France, who for years past has been traveling around the world, and who is the author of several learned works, recently delivered a discourse at the Oriental Museum in Vienna, of which the following extracts appeared in the columns of the Vienna press:

"Whoever speaks of the important changes on the face of the globe must not allow China to pass unremarked. The war of England and France against the Celestial Empire was an historical fact of world-wide importance, not because of the military successes achieved—the most famous of which was the plunder and destruction of the Imperial summer palace at Pekin—but because the allies cast down the walls through which 400,000,000 of inhabitants were hermetically closed in from the outside world. With the intention of opening China to Europeans, the globe has been thrown open to the Chinese. Who travels nowadays through the interior of the Flowery Kingdom? No one, with the exception of the missionaries, whose presence was already tolerated there, and in addition to these there are a few explorers. But the Chinese are streaming over the greater part of the globe and are also forming colonies, albeit after their own fashion. Highly gifted, although inferior to the Caucasian in the highest spheres of mental activity; endowed with untiring industry; temperate to the utmost abstemiousness; frugal, a born merchant of probity ever true to his word; a first class cultivator, especially in gardening; distinguished in every kind of handicraft, the son of the Middle Kingdom slowly, surely, and unremarked is supplanting the Europeans wherever they are brought together. I am speaking of them only as I have found them. In 1871 the entire English trade with China, amounting then as now to £42,000,000 sterling, was transacted through English firms. The four great houses, of which one was American, were in Shanghai, while the smaller ones were distributed among the treaty ports. Added to these were the middlemen, as the sale of English imports in the interior of the empire was effected through native merchants. In addition to this the firm of Russell & Co. owned 20 steamers that kept up the commercial intercourse between the treaty ports, extending to the Yangtse River. Nowadays, with the exception of some great influential English firms, all the same trade, together with the Russell steamers, has passed into the hands of Chinese merchants or of Chinese corporations. In Macao, since nearly 400 years in possession of the Portuguese, are to be seen magnificent palaces, some of which date from the sixteenth century; they are situated in the finest part of the city, where the Chinese were not in the habit of building; and yet the greater number of these palaces have passed by purchase into the hands of rich Chinese and are now inhabited by them.

"On my first visit to Singapore, in 1871, the population consisted of 100 white families, of 20,000 Malays, and a few thousand Chinese. On my return there in the beginning of 1884 the population was divided, according to the official census, into 100 white families, 20,000 Malays, and 86,000 Chinese. A new Chinese town had sprung up, with magnificent stores, beautiful residences, and pagodas. I imagined that I was transported to Canton. The country lying to the south point of Indo-China, which a few years ago was almost uninhabited, is now filling up with Chinese. The number of the sons of the Flowery Kingdom who emigrated to that point and to Singapore amounted to 100,000 in 1882, to 150,000 in 1883, and last year an important increase to these numbers was expected.

"The Draconian laws, through which efforts have been made in California and Australia to get rid of this inconvenient opposition, are well known. These laws, that stand in glaring contradiction to the philanthropic principles of equality and fraternity among all races, despite of all efforts to maintain their efficiency, remain a dead letter. I never met more Chinese in San Francisco than I did last summer, and in Australia the Chinese element is ever increasing in importance. To a man who will do the same work for half price all doors are open. Even in the South Sea Islands the influence of Chinese labor is already felt. The important trade of the Gilbert Islands is in the hands of a great Chinese firm. On the Sandwich Islands the sons of the Middle Kingdom are spreading every year. The North Americans, until now the rulers of that island under the native kings of Hawaii, are already feeling the earth shake under their feet, as in vain they resist these inroads. All these things have I seen with my own eyes, except in Chili and Peru, countries that I did not visit. From official documents, however, I extract the fact that since 1860 200,000 Chinese have landed there—an enormous number, considering the small European population in those countries.

"Europe, with her 300,000,000; China, with her 400,000,000, represent, with the exception of India, the two most overpopulated parts of the world. Both send their sons to foreign climes. They consist of two mighty streams, of which one is white and the other yellow. In the annals of history there is no mention of the migration of such immense masses of people. A series of questions now arises. How will the status of the old continent be affected by the emigration of so many of its sons? Now, suffering from plethora, after such a severe bleeding, will Europe remain in a full, healthy condition, or, similar to Spain, will she lapse into a state of anemia? Who can tell? What fate is in store for the young, rising, aspiring powers of Central Asia that are neither kingdoms nor republics, and what will be the reactionary effect on the mother country and on Europe? We do not know. What will be the result of the meeting of these white and yellow streams? Will they flow peacefully on parallel lines in their respective channels, or will their commingling lead to chaotic events? We cannot tell. Will Christian society and Christian civilization in their present form disappear, or will they emerge victorious from the conflict, carrying their living, fruitful, everlasting principles to all the corners of the earth? We cannot know. These are the unsolved problems, the secrets of the future, hidden within the womb of time. What we now distinguish is only the first clangor of the overture of the great drama of the coming times. The curtain is not yet rung up, as the plot is only to be worked out in the twentieth century."

Such is the broad, statesmanlike view of the Chinese question. It forcibly illustrates how impossible it is, and always will be, to deal with it from the demagogue's standpoint, and how important it is that we should devise and adopt a wiser and more efficient line of policy than that which we have pursued thus far.

The crystallized facts shown in this report prove beyond question that we have not dealt sternly and vigorously enough with this question in the regulation of our own affairs; and the proof is, that by our own inertness in dealing with the practical side of the matter in the enactment and enforcement of proper laws for our protection, we have permitted the Chinese to become our masters, instead of asserting and maintaining the mastery ourselves. Let us look at this question now in all its enlarged proportions, and rely upon our own self-help to deal with it in such a manner that the effects of our policy shall be felt and its wisdom demonstrated.

Municipal laws that are made to be enforced, and that are enforced—that shall prohibit any greater number of people from living on the space covered by one block, for example, than now live on such space, taking, if you please, the most densely inhabited block outside of Chinatown for a standard as a limit of the rule; that shall embody the cubic air law as it at present stands; that shall compel the use of chimneys and proper cooking facilities; that shall enforce cleanliness at the cost of the occupants; that shall restrict prostitution; that shall suppress and put out of existence barricaded gambling dens; that shall prevent, under the most stringent penalties, the violation of fire and sanitary laws of every description; that shall, as a sanitary measure, prevent the exhumation of the remains of deceased persons, except under a much heavier tax than at present imposed; that shall prevent overcrowding in their theaters—will correct, as far as possible, many of the abuses that grow out of the presence of this people, and can hardly fail to drive them from among us. Hold, if necessary, the property owner responsible for the overcrowding or other unlawful use of his property, and make the penalty imposed for violation of such laws a lien upon the property itself, and San Francisco will soon cease to be a paradise or even an attractive place of habitation for the Mongolian.

Recent decisions of the Supreme Court, notably in the Chinese laundry cases, have shown conclusively that sufficient authority and power is vested in the Board of Supervisors to accomplish these results, and it rests with the Board to say how it shall best be exercised.

True it is that the wretched "dollar limit" policy again arrays itself before us when any questions in this connection involving increased public expenditures is presented. But it should not be permitted to militate against a discussion of the proposed new line of policy and the adoption of such a line of action as will bring about its earliest possible realization and enforcement, whether it is to take effect now or at such later period of time as a more enlarged sense of public duty in making future tax levies shall render practicable. Nor should it be lost sight of that in making new laws, imposing and collecting new penalties, an enlarged source of revenue can and must be created, which will go far toward covering all the expense involved in the movement. But the adoption and enforcement of the line of policy that has been suggested will be cheap at any cost, and ought not to be objected to on that score. Kept in the worn and narrow rut of public parsimony, San Francisco can never shake off this Mongolian vampire that is now sapping her vitals any more than she can protect the public health and administer to the public necessities generally in the care of schools, streets, etc. With the adoption of more liberal ideas and the exaction of a strict performance of duty on the part of her public officers and representatives, there will be no further need of, nor occupation, for the demagogue; much less will narrow-minded and mean-spirited public journalism be able to shape, control, and mislead public opinion as it has done in the past.

When the nation was confronted with open rebellion on the part of the citizens of an immense area of its territory, and human slavery stood in the forefront of the battle, as it had been the prime cause of the attempt to destroy the Government; when the question was narrowed down to a struggle between free labor and slave labor, and one or the other must be throttled to the death, the people did not stop to count the cost, but stood determinedly for the right at any price, and the right prevailed.

In its degree there is a struggle between free labor and that which is far worse than negro slavery in its effects upon free labor—Chinese coolieism—here in our midst to-day; and the heroic treatment, cost what it may, is the only thing that can stamp it out. You cannot, and would not if you could, force American free labor down to the level of Chinese labor. You can so impose restrictions upon the Chinese, under general regulations, which all other races will willingly submit to, that shall take away from them much of the vantage ground which they now occupy in their cheap, crowded mode of life and the indulgence in their vices, and thereby you will force Chinese labor up to a nearer level, in cost, with that of free labor, than that which now prevails. Can it be doubtful, then, how the struggle would progress under such a change of conditions?

Meanwhile, let us relax no effort to secure from Congress such additional legislation as may be necessary to eventually and effectually prohibit and put a stop to Chinese immigration. No step can possibly be taken by the people of San Francisco, represented in her municipal authorities, that will more effectually promote this purpose than to deal rigidly with these Asiatic people among us, and so drive them to other States, to be their own educators against their further coming. For no method and no policy will sooner relieve our working classes from the disadvantages and hardships which their presence here now involves, and no method and no policy will sooner or more effectually educate the eastern mind up to the danger which they are courting in favoring this class of immigration than direct contact with their presence, and direct and bitter experience such as we have been subjected to and are struggling to reverse.

Your committee will, at an early date, submit an ordinance for the consideration of the Board, which it is believed will best carry into effect the conclusions and suggestions hereinbefore set forth.

All of which is respectfully submitted.

JOHN E. KUNKLER.
W. B. FARWELL.

NOTE.—Mr. Pond being absent from the State, his name is not attached to this report. Having had his entire coöperation up to the date of his departure, we do not doubt that he would heartily join with us were he present.

W. B. FARWELL.
JOHN E. KUNKLER.

APPENDIX.

MANUFACTURES IN CHINATOWN.

Exhibit "A."

STREET AND NUMBER.	Story.	Sewing Machines	Workmen	Capacity	Remarks.
Brenham Place, 9	First story	10	5	----	Shirt manufacturing; south front.
Dupont, 607	First story	----	25	40	Cigar factory. One man makes 200 cigars in a day. They pay at the rate of 50 cents to 65 cents per hundred.
Dupont, 607	Second story	6	3	40	Packing.
Dupont, 609	First story	----	31	40	Shoe factory.
Dupont, 611	First story	3	15	----	Cigar factory.
Dupont, 614	First story	9	3	60	Tailor and overall factory.
Dupont, 614	Second story	----	8	----	Tailor and overall factory.
Dupont, 617	First story	3	300	----	Hop Kee & Co., shoe factory.

MANUFACTURES IN CHINATOWN—Continued.

STREET AND NUMBER.	Story.	Sewing Machines	Workmen	Capacity	Remarks.
Dupont, 618	Second story		4		Tailor.
Dupont, 618	First story		4	6	Cigar factory.
Dupont, 618	Upper first story		2		Cigar factory.
Dupont, 618	Second story	20	26		Cigar factory, full.
Dupont, 701	Third story	33	18	40	Shirt factory; 26 bunks in same room.
Dupont, 701	Second story	22	23	35	Overall factory; brand, Standard Coats.
Dupont, 707	Third story	15	14		Overall factory; brand, Boss of the Road.
Dupont, 707	Attic		13	60	Overall factory; brand, Boss of the Road.
Dupont, 715	First story		40		Cigar factory. Pay men 50 cents per hundred; pay strippers $15 per month. They use basement of Waverly Place.
Dupont, 715½	First story	2	2		Tailors.
Dupont, 716	First story	1	2		Tailors. Rear is gambling-room.
Dupont, 716	Second story	2	2		Tailors.
Dupont, 813	Second story	1	3		Tailors.
Dupont, 816	First story	2	4		Tailors. Rear is gambling-room.
Dupont, 822	First story	2	3		Clothing.
Dupont, 824	First story	1	4		Clothing. Rear is gambling-room.
Dupont, 828	First story	2	3		Clothing.
Dupont, 828	Second story	1	3		
Dupont, 841	Upper first story	1	2		Clothing.
Dupont, 904	First story	4	6		Clothing.
Dupont, 912	Basement		19	30	
Dupont, 912	First story	4	7		Clothing.
Dupont, 916	First story	1	6		Overall factory.
Dupont, 916	Second story	10	4		Overall factory. Pay men $10 to $16 per month and board. A man can make 1 dozen overalls in a day. It costs 25 cents per day for board.
Waverly Place, 10	First story		9		Clothing.
Waverly Place, 13	Basement				Cigar factory. See 715 Dupont Street.
Waverly Place, 22	First story		3		Clothing.
Waverly Place, 18	First story		3		Tin shop.
Waverly Place, 25	First story		3		Shoe factory.
Waverly Place, 36½	First story	1	1		Tailor.
Waverly Place, 116	First story	3	3		Tailor.
Waverly Place, 125	First story	4	3		Clothing.
Waverly Place, 127	First story	1	1		Tailor.
Waverly Place, 35	First story	4	7		Overall factory. Pay men from 75 cents to 85 cents per day. A man can make from 1 to 1½ dozen pairs in a day.
Waverly Place	Upper first story	15	15		
Waverly Place, 37			2		Clothing.
Waverly Place, 16	First story		1		Clothing.
Dupont, 813	First story		2		Tailor.
Dupont, 813	First story		2		Tailor.
Dupont, 813½	First story		2		Tailor.
Dupont, 819	First story		2		Tin shop.
Dupont, 843	First story		2		Tin shop.
Dupont, 843	Second story		1		Candle factory.
Dupont, 845	First story		1		Clothing.
Dupont, 919	First story		1		Clothing.
Dupont, 1002	Basement	3	3		Overall factory.
Dupont, 1006	First story	3	5		Clothing.
Dupont, 1012	First story		1		Clothing.
Dupont, 1012	Second story	6	6		Clothing.
Dupont, 1014	Second story	3	6		Clothing.
Dupont, 1017	First story	3	3		Clothing.
Dupont, 1018	First story	4	6		Clothing.
Dupont, 1018	Second story	8	6		Clothing.
Dupont, 1018	Second story	5	4		Clothing.

MANUFACTURES IN CHINATOWN—Continued.

STREET AND NUMBER.	Story.	Sewing Machines	Workmen	Capacity	Remarks.
Dupont, 1018	Third story	3	4	----	Clothing.
Dupont, 1018	Third story	2	4	----	Clothing.
Dupont, 1018	Fourth story	2	4	----	Clothing.
Dupont, 1018	Fourth story	1	2	----	Clothing.
Dupont, 1021	First story	2	2	----	Clothing.
Dupont, 1021	Second story	2	6	----	Clothing.
Dupont, 1023	Third story	2	4	----	Clothing.
Dupont, 1032	First story	4	6	----	Clothing.
Dupont, 1034	Second story	10	20	----	Clothing.
Dupont, 1034	Second story	9	9	----	Shirt factory.
Stockton, 710	Basement	----	----	----	Tannery. See Brooklyn Place.
Stockton, 710	First story	12	11	----	Shirt factory.
Stockton, 712	First story	6	5	----	Shirt factory.
Stockton, 804	Sub-basement	4	3	----	Shirt factory. One woman working.
Stockton, 804	Basement	4	6	15	Shoe factory.
Stockton, 816	First story	3	4	----	Shirt factory.
Stockton, 912	First story	4	15	----	Ladies' underwear.
Stockton, 912	Second story	7	5	----	Ladies' underwear.
Stockton, 914	First story	4	2	----	Ladies' underwear.
Stockton, 916	First story	4	4	----	Shirt factory.
Stockton, 916	Rear basement	----	6	----	Tannery.
Stockton, 916½	Front basement	----	1	----	Cigar-box factory; made from old boxes.
Stockton, 916½	Basement	----	----	----	Tannery, included in 916.
Stockton, 916½	First story	4	4	----	Ladies' underwear.
Stockton, 918	First story	5	20	----	Shoe factory; full.
Stockton, 918	Second story	5	15	----	Shoe factory; full.
Stockton, 920	Basement	2	2	----	Tailors.
Stockton, 920	First story	5	3	----	Shirt factory.
Stockton, 922	First story	----	21	30	Cigar factory.
Stockton, 922	Second story	7	15	----	Clothing. One woman working. The men get from 25 cents to $1 per day. Can make 2 pairs pants in a day. The proprietor gets $6 per dozen.
Stockton, 924	First story	6	8	----	
Stockton, 924	Second story	25	21	----	Overall factory.
Stockton, 924	Second story	9	10	----	Room connected with 847 Washington Street.
Stockton, 1004	First story	32	32	----	Overall factory.
Stockton, 1006	First story	10	10	----	Ladies' underwear. These last two buildings have been torn down since notes were taken.
Stockton, 1010	Second story	2	3	----	Clothing.
Stockton, 1010	Third story	2	2	----	Clothing.
Stockton, 1012	First story	8	21	----	Shoe factory.
Stockton, 1014	Third story	1	1	----	Shoe factory.
Stockton, 1016	First story	----	27	40	Cigar factory.
Stockton, 1016	Upper first story	----	4	----	Cigar factory.
Stockton, 1018	Rear basement	1	3	----	Tailors. Entrance, Church Court.
Stockton, 1018	Rear basement	4	7	----	Tailors. Entrance, Church Court.
Stockton, 1018½	Rear basement	2	3	----	Tailors. Entrance, Church Court.
Stockton, 1018	First story	2	2	----	Clothing.
Stockton, 1018	First story	9	5	----	Tailors.
Stockton, 1018	First story	5	7	----	Tailors.
Stockton, 1018	Second story	4	6	----	Tailors.
Stockton, 1018	Third story	2	4	----	Tailors.
Stockton, 1018	Third story	4	6	----	Tailors. Work for Bennett Bros. A white man working with and teaching Chinamen how to work. The men get $1 25 per coat, and can make one coat per day (probably correct).
Stockton, 1018½	First story	2	2	----	Ladies' underwear.
Stockton, 1018½	Second story	9	5	----	Overall factory.
Stockton, 1018½	Third story	2	3	----	Tailor.
Stockton, 1018½	Third story	3	5	----	Tailor. Making for Jackson Bros. & Co., Portland, Oregon.
Stockton, 1018, 1018½	Fourth story	2	1	---	Shirt factory. Men get $1 25 per day.

MANUFACTURES IN CHINATOWN—Continued.

STREET AND NUMBER.	Story.	Sewing Machines	Workmen	Capacity	Remarks.
Stockton, 1018, 1018½	Fourth story	8	4	----	Shirt factory.
Stockton, 1020	Basement	----	1	----	Shirt factory.
Stockton, 1020	First story	4	4	----	Shirt factory.
Stockton, 1022	First story	40	40	60	Overall factory. Brand, Boss of the Road.
Stockton, 1024	First story	36	36	60	Overall factory.
Stockton, 1104	First story	20	20	----	Overall factory.
Stockton, 1104, 1106	Second story	4	9	----	Clothing.
Stockton, 1106	First story	8	7	----	Ladies' underwear.
Stockton, 1114	Basement	----	4	----	Cigars.
Stockton, 1114	First story	10	10	----	Ladies' underwear.
Stockton, 1120	First story	6	6	----	Ladies' underwear.
Stockton, 1120	Second story	12	12	----	Shirt factory.
Stockton, 1120	Third story	3	5	----	Clothing.
Sacramento, 708	First story	----	7	60	Shoe factory.
Sacramento, 708	Second story	7	35	----	Shoe factory.
Sacramento, 729	First story	----	4	100	Cigar factory.
Sacramento, 729	Rear first story	----	42	----	Cigar factory.
Sacramento, 729	First story	----	4	----	Cigar factory.
Sacramento, 729	Third story	56	45	60	Overall factory. Brands: Our Farmer's Friend, for E. T. Allen, San Francisco; The Club; Crown of California; Pioneers, for A. B. Elfelt & Co.; Caballero, for A. B. Elfelt & Co. The men receive from 60 cents to 70 cents, and the proprietor $1 10 per dozen.
Sacramento, 729	Fourth story	8	7	----	Overall factory. Brand: Wagner's Success, for Chas. Wagner, Laramie, Wy. T.
Sacramento, 729	Fourth story	3	4	----	Overall factory. Brand: El Dorado.
Sacramento, 729	Fourth story	3	3	----	Overall factory. Brand: El Dorado, for Chas. Wagner, Laramie, Wy. T.
Sacramento, 729	Fourth story	2	2	----	Overall factory. Brand: Wagner's Success, for Chas. Wagner, Laramie, Wy. T.
Sacramento, 731	Second story	5	4	----	Overall factory; 5 long cutting tables.
Sacramento, 731	Second story	14	10	----	Overall factory; 11 bunks in room.
Sacramento, 731	Second story	43	39	60	Overall factory.
Sacramento, 731	Third story	3	3	----	Overall factory.
Sacramento, 737	Basement	----	2	----	Trunk factory.
Sacramento, 751	Third story	20	23	----	Shirt factory; 26 bunks in room. It was a tailor shop with 21 sewing machines when previous notes were taken.
Sacramento, 805	First story	3	3	----	Tailors.
Sacramento, 812	First story	4	4	----	Clothing.
Sacramento, 819	First story	----	3	25	Cigar factory.
Sacramento, 819	Second story	----	-----	----	Cigar factory.
Sacramento, 820	Basement	----	3	----	Broom factory.
Sacramento, 821	First story	----	18	25	Cigar factory.
Commercial, 707½	Third story	12	11	----	Shirt factory.
Commercial, 707	Fourth story	----	2	20	Tinware; under roof.
Commercial, 712	First story	----	-----	----	Cigar factory; office and dining-room.
Commercial, 712	Second story	----	20	60	Cigar factory; pay 50 cents and 75 cents per hundred.
Commercial, 745	Basement	----	2	----	Jewelry manufacturing.
Commercial, 745	Basement	3	3	----	Shirt factory.
Commercial, 746	First story	4	4	----	Overall factory.
Clay, 723	First story	----	7	----	Broom factory.
Clay, 735	First story	9	9	----	Shirt factory; pay $1 25 per dozen.
Clay, 737	Second story	4	3	----	Shirt factory; pay $1 50 to $2 per dozen.
Clay, 739	First story	----	16	30	Cigar factory; pay 70 cents per hundred; man can make $1 50 per day.
Clay, 743	First story	6	20	----	Shoe factory; full.
Clay, 760	First story	----	2	----	Tin shop.

MANUFACTURES IN CHINATOWN—Continued.

STREET AND NUMBER.	Story.	Sewing Machines	Workmen	Capacity	Remarks.
Clay, 825	First story	6	5	----	Clothing.
Clay, 826	First story	----	5	----	Cigar factory; pay 50 cents to 65 cents per hundred.
Clay, 826	Upper first story	----	22	----	----
Clay, 831	Second story	3	2	----	Shirt factory.
Clay, 835	First story	2	2	----	Shirt factory.
Clay, 838	First story	5	4	----	Tailors.
Clay, 839	Second story	35	40	60	Overall factory.
Clay, 840	First story	6	20	----	Shoe factory.
Clay, 843	First story	6	6	----	Ladies' underwear.
Clay, 845	First story	3	3	----	Ladies' underwear.
Clay, 845	Upper first story	8	7	----	Ladies' underwear.
Clay, 847	----	4	4	----	Ladies' underwear.
Washington, 733	First story	----	----	----	Underwear (removed).
Washington, 737	First story	1	1	----	Clothing.
Washington, 738	First story	27	----	----	Clothing.
Washington, 738	Second story	7	7	----	Shirt factory.
Washington, 738	Third story	4	3	----	Clothing.
Washington, 754½	----	1	----	----	Tinware.
Washington, 806	Second story	----	----	----	Vacant.
Washington, 811	First story	2	2	----	Clothing.
Washington, 819½	Second story	7	28	50	Shoe factory.
Washington, 823	Second story	9	15	----	Tailors; pay $15 per dozen. A man can make one coat in a day for wholesale merchants.
Washington, 823	Third story	4	1	----	Tailors.
Washington, 823	Third story	1	1	----	Tailors.
Washington, 823	Third story	3	3	----	Tailors.
Washington, 823	Third story	1	2	----	Tailors.
Washington, 823	Third story	2	4	----	Tailors; for M. Hyman & Co.
Washington, 823	Third story	2	4	----	Tailors; pay $3 per dozen for making vests.
Washington, 826	Second story	13	11	----	Shirt factory.
Washington, 828	Basement	----	5	----	Cigar factory.
Washington, 827	Basement	----	5	24	Cigar factory; changed to barber and lodging two weeks after notes were taken.
Washington, 827	First story	----	27	40	Cigar factory.
Washington, 827	Second story	25	12	----	Overall factory.
Washington, 832	Second story	5	3	----	Tailors. California clothing.
Washington, 832	Second story	2	2	----	Tailors.
Washington, 834	----	1	1	----	Tailors.
Washington, 836	First story	----	2	----	Clothing and jewelry.
Washington, 840	----	----	33	40	Cigar factory.
Washington, 841	Basement	----	6	30	Cigar factory.
Washington, 843	Basement	----	3	----	Cigar-box factory; making from old boxes.
Washington, 847	Second story	9	10	----	Tailors.
Jackson, 614	First story	----	2	----	Candles.
Jackson, 617	First story	1	10	----	Boot-maker.
Jackson, 621	First story	----	5	----	Tin shop.
Jackson, 621	Second story	30	30	----	Overall and shirt factory.
Jackson, 621	Third story	----	4	----	Tannery.
Jackson, 706	Basement	----	4	----	Clothing.
Jackson, 706	Third story	----	6	----	Clothing.
Jackson, 706	Fourth story	----	4	----	Clothing.
Jackson, 709	Basement	1	1	----	Clothing.
Jackson, 714	First story	----	6	----	Jewelry.
Jackson, 716	First story	----	6	----	Jewelry.
Jackson, 722	Third story	----	3	----	Shirt factory.
Jackson, 722	Third story	----	2	----	Clothing.
Jackson, 728	Rear sec'd story	30	30	----	Clothing.
Jackson, 728	Third story	26	25	----	Clothing.
Jackson, 730	Second story	----	30	----	Cigars.
Jackson, 733	Basement	----	10	30	Cigars.
Jackson, 735	First story	10	10	----	Shirt factory.
Jackson, 736	First story	5	7	----	Clothing.
Jackson, 737, 739	First story	----	17	60	Cigar factory.

MANUFACTURES IN CHINATOWN—Continued.

STREET AND NUMBER.	Story.	Sewing Machines	Workmen	Capacity	Remarks.
Jackson, 738	First story	3	3		Clothing.
Jackson, 738	Second story		3		Clothing.
Jackson, 739½	Basement	4	5		Shirt-makers.
Jackson, 739½	Basement	1	1		Shirt-makers.
Jackson, 740	Basement		5		Shoe factory.
Jackson, 740	First story	3	4		Shoe factory.
Jackson, 742	First story		3		Clothing.
Jackson, 840	First story				Clothing.
Pacific, 645	First story	4	5		Clothing.
Pacific, 631	First story		16		Cigars.
Pacific, 627	First story		10		Cigars.
Pacific, 635	Second story	6	6		Ladies' underwear.
Pacific, 705	Third story	2	2		Clothing.
Pacific, 707	First story		38		Cigars.
Pacific, 711	First story		35		Cigars.
Pacific, 715	Second story	6	12		Clothing.
Pacific, 715	Third story	8	8		Clothing.
Pacific, 719	Second story	16	23		Clothing.
Pacific, 727	Second story	6	20		Clothing.
Pacific, 729, 729½	First story				Cigarettes (store).
Pacific, 743	First story	10	10		Ladies' underwear.
Pacific, 837	Second story	14	19		Clothing.
Pacific, 837	Third story	3	3		Clothing.
Washington Pl., 15	Second story	6			Clothing.
Washington Pl., 17	First story				Clothing.
Church Court, 8	First story				Overalls.
Spofford Place, 4	Third story	2	2		Clothing.
Spofford Place, 63	First story	4	2		Shirt factory.
Spofford Place, 63	Second story	1	2		Shirt factory.
Stout's Alley, 9	First story	3			Overalls and shirt factory.
Brooklyn Place	Second story		3		Tannery; occupies basement of 710 Stockton Street.

Recapitulation.

Cigar-makers	427
Boot and shoe makers	599
Clothing-makers	974
Underwear-makers	255
Miscellaneous	71
Total number of employés	2,326
Total number of sewing machines	1,245

BARRICADED GAMBLING DENS IN CHINATOWN.

Exhibit "B."

STREET AND NUMBER.	Remarks.
Dupont, 710	Upper first floor; entrance side of stairs through 3-inch doors plated with iron to a room 25x20 feet back of 710; from last room to rear of 708, 15x16 feet; last room leading to escape on roof.
Dupont, 714½	Rear, first story; one table; entrance through two 3-inch plank doors.
Dupont, 716	Rear, first story; entrance through a 2-inch plank and iron door.
Dupont, 716½	Rear, first story; 2-inch plank and iron door; kitchen and water-closet.
Dupont, 720	First story; entrance through three doors plated with ⅜-inch iron; also room in second story.
Dupont, 722	Rear, first story; entrance through 3-inch doors plated with iron.
Dupont, 800	Rear, first story; two iron doors behind a counter; outlet to second story through an iron door to front room about 16 feet deep, opening into hall through two iron doors.

BARRICADED GAMBLING DENS IN CHINATOWN—Continued.

STREET AND NUMBER.	Remarks.
Dupont, 802	Rear, first story; one 3-inch door plated with iron; entrance to second story through trap-door plated with iron.
Dupont, 803	Rear, first story; trap-door to basement; one 3-inch plank and iron door.
Dupont, 806	Rear, first story; two 3-inch doors plated with iron; water-closet and kitchen; escape over kitchen.
Dupont, 809	Rear, first story; entrance from store; two heavy doors.
Dupont, 811	Rear, first story; two small and three 3-inch plated iron doors.
Dupont, 812	Rear, first story; trap-door goes to cellar.
Dupont, 813	Rear, first story; two iron doors; kitchen and water-closet in rear.
Dupont, 816	Rear, first story; two 3-inch doors.
Dupont, 818	Rear, first story; entrance through two 3-inch plank doors.
Dupont, 823	North front, second story; one room; heavy iron door.
Dupont, 825	Rear, first story; one iron door.
Dupont, 824	Rear, first story; entrance through two 3-inch plank doors.
Dupont, 824	Upper first story; connects with second story by means of heavy iron trap-door and heavy plated doors.
Dupont, 828	Rear, first story; entrance through two 3-inch plank doors.
Dupont, 837	First story, front, rear of Chung Wing & Co.'s drygoods store; one heavy iron door, rear, first story; entrance through two iron doors with 3-inch plank; entrance from street and store, kitchen from rear by stairs to second story, about 16x16 feet, through heavy iron trap-door; iron partition between store and gambling-room.
Dupont, 837	One gambling-room, second story, with pawn shop; one heavy plank door.
Dupont, 838	First story; entrance through two 3-inch plank doors; entrance to second story through a trap-door; door from room on second floor is of 3-inch plank plated with iron.
Dupont, 843	Rear, first story; one heavy door front and rear; kitchen and water-closet in rear; outlet over kitchen to 847.
Dupont, 845	Rear, first story; one heavy iron door; also escape to meet store 847; kitchen and water-closet in rear.
Dupont, 847	Second story; one heavy iron door on north front; south front, tin shop; trap-door from 843; gambling front of stairs to third story; one heavy iron door.
Dupont, 906	Rear, first story; 3-inch plank door; escape on second story to Dupont and Washington Streets.
Dupont, 912	Third story; old gambling-rooms; three doors; front and rear doors.
Dupont, 920	Front, second story; two iron doors in front and one iron door in rear; front top of stairs, one iron door in rear; trap-door over water-shed.
Dupont, 928	Second story; gambling and pawnbroker.
Dupont, 930	Rear, first story; entrance through store; 3-inch plank and iron door; rear, two 3-inch plank and iron doors; rear, two iron doors.
Dupont, 905	Rear, first story; entrance to gambling-room through store of Quong On & Co. by two 3-inch plank and iron doors; escape by plank and iron door to basement, and by trap-door to rear of first story; second story, four lottery games.
Dupont, 903	Rear, first story; entrance through drug store of Yee Shoe Hong & Co. by three 3-inch plank and iron doors; escape, plank and iron trap-door to basement; also through plank and iron trap-door to second story; also escape from second story to Washington Street.
Dupont, 911	Rear, first story; entrance through tailor shop by two 3-inch plank and iron doors; escape to second story. Second story, five gambling-rooms; entrance through plank and iron door at head of stairs; iron partition in hall; two plank and iron doors to gambling-room; plank and iron doors at foot of second flight of stairs. In rear, plank and iron door opening in roof; plank and iron door in rear; third story for escape to 911.
Dupont, 909	First story, rear; entrance to gambling-room through two 3-inch plank and iron doors.
Dupont, 921	Rear, first story; entrance to gambling-room from store of Sam Shee No & Co. through one 3-inch plank and iron door; escape to upper first story.

BARRICADED GAMBLING DENS IN CHINATOWN—Continued.

STREET AND NUMBER.	Remarks.
Dupont, 919	Rear, first story; entrance to gambling-rooms through store of You Kee by one 3-inch plank and iron door; escape to rear through 3-inch plank and iron door. Second story, two gambling-rooms, plank and iron door to each.
Dupont, 915	Rear, first story; entrance to gambling-rooms through one 3-inch plank and iron door, front and rear; escape through trap-door to second and third stories.
Dupont, 937	First story; entrance to gambling-rooms through one small door and three 3-inch plank and iron doors; also, entrance through sliding doors to store north.
Dupont, 933	Rear, first story; entrance through drug store; one 3-inch plank and iron door; also, entrance or escape from rear basement through one 3-inch plank and iron trap-door; trap-door escape above to upper stories.
Dupont, 927	Front, first story; entrance through store by three 3-inch plank and iron doors; exit to rear gambling-room in second story through three 3-inch plank and iron doors, with escapes to St. Louis Alley to second floor of restaurant; total number of iron doors on the two, seven.
Dupont, 939	Second story; entrance to gambling-rooms through one 3-inch plank and iron door; escape from gambling-room, also rear escape to St. Louis Alley through one 3-inch plank and iron door.
Dupont, 1002	Second story; gambling-rooms front of stairs to Bartlett Alley, and between north and south halls; one plank and iron door in front; at kitchen and north hall, wooden bars to window; trap-door down to gambling-room below; covered above and below.
Dupont, 1025	Rear, first story; lottery gambling-room; entrance from store through a 3-inch plank and iron door.
Dupont, 1112	Rear, first story; lottery gambling-room; this room is 14 feet deep; entrance from cigar store through a 3-inch plank and iron door; rear one a 3-inch plank and iron door also.
Stockton, 1222	Front basement; entrance through two 2-inch plank doors; room 14 feet deep.
Jackson, 626	Second story; entrance through one 3-inch plank and iron door; entrance also from rear court through plank and iron door.
Jackson, 632	First story; entrance through small 2-inch plank door; also from hall, one 3-inch plank and iron door in rear; escape into court; iron bars to stairs from below; heavy trap-door; a plank and iron door at foot of stairs; door to rear room; from this, up ladder to court.
Jackson, 636	First story; entrance through two 2-inch plank doors; rear kitchen; escape from kitchen to basement. Second story in front of stairs; one 3-inch plank and iron door at top of stairs; trap-door to front.
Jackson, 640½	Rear, first story; entrance through store by two 3-inch plank doors. Second story, west front, lottery game; one heavy wood door to hall; rear, gambling-room; entrance through one plank and iron door in front hall; heavy door at foot of stairs.
Jackson, 640	Rear, first story; entrance through store; two 3-inch plank and iron doors; trap-door to gambling-room above covered with paper.
Jackson, 650	First story; one plank and iron door.
Pacific, 741	First story, rear; gambling-room; 2-inch plank door from rear balcony; a 2-inch plank door from kitchen of 741 Pacific Street; windows from front room to wood yard east; also window to bedroom of 741 Pacific Street.
Pacific, 727½	First story; entrance through 729, through a 3-inch plank and iron door, and a plank door in rear to Sullivan's Alley.
Pacific, 729	Second story; entrance through trap-door from 727; laundry, rear 729, near Sullivan's Alley; lottery and gambling-room; entrance through a 2-inch plank door; exit through a plank door four inches thick, to stairs south of building; entrance from balcony, east side.
Jackson, 625	First story; entrance through two heavy plank and iron doors.
Jackson, 623	First story; gambling-room; entrance through three plank and iron doors; iron partition.
Jackson, 627	First story; front entrance through three doors—two plank and one iron; in rear to lodging-room.

BARRICADED GAMBLING DENS IN CHINATOWN—Continued.

STREET AND NUMBER.	Remarks.
Jackson, 711	Rear, first story; entrance to gambling-rooms through one 3-inch plank door.
St. Louis Alley	North side, second story; gambling-room; escape on roof.
Jackson, 709	Rear, first story; entrance to gambling-room through one 3-inch plank and iron door; building runs to St. Louis Alley; no opening in the alley; escape up ladder to second story through trap, fitting closely to kitchen, and up stairs to rear upper second story lodging; rear of lodging, light door on roof.
Jackson, 721	Second story; entrance through a plank and iron door over 721; gambling-room and lottery; from hall, one plank and iron door.
Jackson, 715	First story; entrance to gambling-room through pawnbroker's, west side, through two 3-inch plank and iron doors.
Jackson, 715-719	Second story; entrance to gambling-room through one 3-inch plank and iron door, top of stairs; second story, west side entrance to gambling-room, through plank and iron door to Stuart's Alley.
Jackson, 713	First story; entrance to gambling-rooms through Ling Ching & Co.'s general merchandise store by one 3-inch plank door; escape to St. Louis Alley through a 1-inch plank and iron door.
Jackson	North side, corner of Dupont; first story, four gambling-rooms off of main hall; hall west of main hall; entrance through one 3-inch plank and iron door to two games; entrance from last hall through one 3-inch plank and iron door; lodging for gambling-rooms through a door of wainscoting, which slides up and down; this door is not easily observed. Second story, gambling-room; entrance through one 3-inch plank and iron door; hall west side of stairs; entrance through one 4-inch plank and iron door; iron in center of door. Third story, entrance from last hall through one 3-inch plank and iron door; lodging rear of gambling-rooms; court of building and kitchen, east end; door from lodging-room through a 3-inch plank and iron door at south end of court; one 3-inch plank and iron door to hall; a 3-inch plank and iron door north from hall to stairs leading up to each floor; hall west of main hall through one 3-inch plank and iron door; also one plank and iron door south of store; a plank door west to lodging-room, and one 3-inch plank and iron door to gambling-room. Fourth story, gambling-room; entrance as shown from last hall; also light door to lodging-room from this room; kitchen covered in court, with opening in roof; also one plank and iron door (fastened up) to kitchen of fifth gambling-room; from this kitchen to rear or last hall of third gambling-room; opium store in front of fourth gambling-rooms (front, first story) through one 3-inch plank and iron door to hall of gambling-room; also stairs up to upper first story. Fifth story, gambling-room; the entrance is through two 3-inch plank and iron doors, and iron partition; to kitchen one plank and iron door; from kitchen down to third and fourth gambling-rooms, also to hall.
Washington, 800	Second story, corner of Dupont; one plank and iron door at top of stairs, and one from hall to gambling-rooms.
Washington, 800	Rear corner from Washington and Dupont; Chinese drug store, with entrance door of heavy plank, with two bars and braces, and through this store to back hall; escape to 903 Dupont Street, through trap-door down stairs to back part of store.
Washington, 808	First story; Quong Sam Wo & Co., general merchandise and jewelry, in front; adjoining this is a private office, next to this an opium counter, then comes lodging and kitchen in rear, with a heavy plank, braced door to kitchen of gambling-room, west.
Washington, 808	First story, gambling-room; behind same store, through plank and iron door; escape through same kitchen as 808.
Washington, 816	Entrance to Grand Theater. Gambling-rooms on east side of hall last mentioned; entrance to hall through a plank and iron door; entrance from hall to rooms through a plank and iron door, with three plank and iron doors to rooms used for gambling; kitchen in rear, with escape through a plank and iron door under stage.
Washington, 816	Gambling-rooms on west side of same hall (theater entrance), with kitchen and water-closet extending under a stage through a plank and iron door.

BARRICADED GAMBLING DENS IN CHINATOWN—Continued.

STREET AND NUMBER.	Remarks.
Washington, 816	Below the stage of the Grand Theater is a kitchen for the gambling-rooms. The rest of the space is divided into two rows of rooms from east to west, with passage in rear from one end to the other; also, a passage through room under stage, making a passage clear through, with center passage from east nearly through. All the rooms are connected with each other. These rooms have been used for gambling-rooms, and have several openings to see through into audience-room. There is a heavy plank and iron door leading from the audience-room to these rooms. The gambling-rooms under the audience-room have exit to these rooms through plank and iron doors, and from west, and under dressing-room, through plank and iron doors to stairs. At top of stairs into dressing-room is a heavy trap-door.
Washington, 820	Front, first story; gambling-rooms through hall to rear of stairs and hardware store, through three plank and iron doors; kitchen and water-closet in rear; escape through two trap-doors to second story.
Washington, 822	First story: gambling-room rear of pawn shop; exit from middle room and rear of stairs to second story.
Washington, 826	Second story; front east corner, gambling-room.
Washington Place, 26	Rear, first story; two gambling-rooms; entrance through store through 3-inch plank and iron door; kitchen and water-closet in rear.
Washington Place, 17	First story, north side of building, outside door; ten feet to next door of 3-inch wood and iron; up three steps, ten feet to door of 3-inch wood and iron; three turns to gambling-room; two games; exit through iron door to stage of Jackson-Street Theater; also exit from rear hall through iron door to basement. Second story, entrance to stairs through 2-inch plank door. Third story, gambling-room, south side of building beside stairs; small door of plank and iron. First story, entrance north side of building through two 3-inch plank and iron doors to rear of last room; exit up to second story. First story, entrance through two planked and iron doors to rear; entrance to second story through iron trap-door; entrance from gambling-room to Jackson-Street Theater, one iron door. First story, entrance through two plank and iron doors. Second story, rear door; plank and iron door from rear of stairs. First story, gambling-room being fitted up; two heavy plank and iron doors.
Washington Place, 33	Stairs to second story of 631 and 633 Jackson Street; three rooms for lottery drawing; one heavy plank and iron door in front of stairs rear of kitchen; over lottery drawing-room one heavy plank and iron door. Second story, lottery game; one door, heavy plank and iron; lottery game, one door, heavy plank and iron; this covers eighty feet from Jackson Street; one heavy plank and iron door at head of stairs.
Stout's Alley	West side, first story, second building from Jackson Street. One 4-inch plank door and one 3-inch plank door; escape from the first floor up to second floor through trap-door to room: entrance to hall through a plank and iron door.
Stout's Alley	Third building from Jackson Street, same side; first story, gambling-room; two plank and iron doors; iron partitions in hall; escape up through trap-door to upper, first, and second stories through plank and iron doors to hall, thence to street on roof: also entrance to north gambling-room.
Stout's Alley	Fourth building from Jackson Street, same side; first story, iron partition; entrance through two plank and iron doors, to rear of first story; small room through another heavy plank and iron door; water-closet on the side through heavy plank and iron door; escape to roof over kitchen.
Stout's Alley	Fourth building from Jackson Street; first story, lottery through small cigar store.
Stout's Alley	Upper first story, gambling-room; entrance through light door; one 4-inch plank door, and one 3-inch plank door.
Stout's Alley	Fifth building from Jackson Street, west side; first story, gambling-room. The entrance is through one 2-inch plank door, and one 3-inch plank door; to rear, kitchen and water-closet through one 3-inch plank door.

Barricaded Gambling Dens in Chinatown—Continued.

Street and Number.	Remarks.
Stout's Alley, 13	First story; entrance through hall thirty feet deep, through two plank and iron doors; no escape.
Stout's Alley, 9	First story; entrance through two plank and iron doors; escape to second floor through a plank and iron door, and one light door to hall; second floor covers escape through first story south.
Stout's Alley, 9	Second story; entrance to gambling-room through plank and iron door in middle of stairs, and one plank and iron door at top of stairs; also, connection with second floor south.
Stout's Alley	First story; entrance to gambling-room through two plank and iron doors in front; one plank and one iron door between gambling-room and water-closet in rear.
Stout's Alley	First story; entrance to gambling-room through two plank and iron doors in front only.
Stout's Alley	East side, first building north of Washington; first story, entrance to gambling-rooms through two plank and iron doors; kitchen and water-closet through trap-door; escape, a plank and iron door to gambling-room north; escape, also, from upper first story; also, through plank and iron door to hall, to Washington Street, to third story and roof.
Stout's Alley	Next building north; first story, entrance to gambling-room through two 3-inch plank doors; one plank and iron door to gambling-room south; upper first story and second story escape through plank and iron trap-doors.
Stout's Alley, 4	Rear, first story; entrance, two plank and wooden doors.
Stout's Alley, 6	Rear, first story; entrance to gambling-rooms through two plank and iron doors; in rear, one plank and iron door.
Stout's Alley, 12	Rear, first story; gambling-rooms in rear; escape from upper first floor; also, one from first floor.
Stout's Alley	First story; entrance to gambling-room through 3-inch plank and iron doors.
Stout's Alley	First story; entrance to gambling-room through one 2-inch plank door, and two 3-inch plank and iron doors; three rooms plank and iron doors.
Stout's Alley	First story; entrance through one 2-inch plank door and two 3-inch plank and iron doors, as above; escape through plank and iron door into hall; also escape to roof from second story.
Stout's Alley, 28	First story; gambling-rooms connected with restaurant; entrance through two 3-inch plank and iron doors.
Stout's Alley	First story; the entrance to gambling-room is through three 3-inch plank and iron doors; escape to second story.
Stout's Alley	First story; the entrance to gambling-rooms is through two 3-inch plank and iron doors; from first to second story, 2-inch plank door. Second story—Another gambling-room, with plank and iron doors connecting with Jackson Street, and plank and iron door escape to rear basement.
Clay	Second floor; entrance through 3-inch heavy plank and iron door from street; also from Dupont Street.
Clay, 723–729	Second story, room on southeast corner; one gambling table; one 3-inch plank door; room next north, one table; one 3-inch plank door; entrance from north room; windows grated; third room, a pawn shop; fourth room, a pawn shop and one gambling table. These rooms in front have heavy plank doors to hall and barred windows.
Washington, 849	Rear, first story; entrance through cigar store; water-closet in rear; trap-door in water-closet for escape.
Commercial, 714½	Second story; pawnbroker; entrance through 2½-inch plank door, plated with ¼-inch iron to gambling den.
Waverly Place, 36½	First story; entrance rear of 114½, through an 8-inch plank and iron door, and one 3-inch plank and iron door; kitchen and water-closet in rear; escape through window in W. C.
Waverly Place, 37	Front, first story; entrance one 2-inch plank and iron door; rear door, 2-inch plank and iron.
Bartlett Alley	West side, first story; one 3-inch plank and iron door, and one 3-inch plank door; escape through a plank and iron door to passage at 640½ Jackson Street, up to restaurant over fence, thence to Bartlett Alley.

CHAPTER V.

CONVICT LABOR.

This subject has been fully discussed and reported by this office to the Federated Trades Council of San Francisco.

As said report contains all the latest statistics on the subject, and from the correspondence between your Excellency and said Council, it appears that all convict labor in the two State Prisons is about to cease, I deem it unnecessary to treat any further upon this subject.

The following is a report from the bureau upon an investigation made in pursuance to a request from the Federated Trades Council of the City and County of San Francisco upon the "Effects of the Competition of Convict Labor with Free Men."

REPORT.

State Bureau of Labor Statistics, Corner Geary and
Dupont Streets, San Francisco, March 8, 1886.

Messrs. Frank Rooney, Peter Roberts, *and* Patrick McGreal:

Gentlemen and Sirs: I have the pleasure to acknowledge the receipt of a communication from you as a committee, representing the Federated Trades Council of the City and County of San Francisco, and of which the following is a copy, viz.:

To Hon. E. C. Marshall, Attorney-General, and Hon. John S. Enos, Commissioner of Labor:

Gentlemen: We desire to call your attention to a matter of grave public interest which very nearly affects the welfare of a large number of the law-abiding industrial classes of California. The disastrous effects of the competition of convict labor with free men and women needs not be indicated to you. for not long since the State Commissioner of Labor made an exhaustive examination into the subject, and elicited an almost unanimous expression from the free labor witnesses that the competition of prison labor was directly responsible for a wage reduction of from twenty-five to forty per cent, and that in some lines of occupation there were no apprentices, for young people could see no advantage in learning a business in the prosecution of which their labor must submit to the valuation of a slave owner or convict dealer; notwithstanding all this, and in spite of the law, nothing has so far been done in behalf of free labor in this matter. The full force of the prisons is at work under the direction of State officers (who are in duty bound to obey the law), in direct violation of the law.

We submit to you, gentlemen, that the question as to what work our convicts shall engage in cuts no figure in the matter at present. Neither you nor we are now concerned with that. Our desire is to put a stop at once to the employment of convicts in any line of business that competes with the product of free labor. To try and bring about this result we have been appointed by the Federated Trades Council, and in the attainment of this end we pledge you our individual assistance, and the hearty coöperation of the body we have the honor to represent.

(Signed:)

FRANK ROONEY,
PETER ROBERTS,
PATRICK McGREAL,
Committee.

In reply thereto, I respectfully report and represent to you as such committee, and to the Federated Trades Council, as follows, viz.:

This office is now, and has at all times, ever since its organization, been ready and willing to extend to all honorable societies representing labor, both skilled and unskilled, such rights and powers, and furnish such statistics and recommendations, and provide such remedies by suggestions, as will tend to and assist them in attaining desirable results.

My duty as the Commissioner of the Bureau of Labor Statistics, and in the matter to which you refer in your communication is, in the same sense, a duty such as devolves upon you as a committee appointed by the high and respected organization, the Federated Trades Council; that is, to inquire into certain matters and things, that are not only antagonistic to, but at the same time jeopardizes, and in a sense destroys the good intentions, desires, and wishes of a good, honest, and intelligent portion of the people of our State.

I deem it unnecessary to make any further comments upon the system of the so called convict labor, other than such as has already been made in the report of this office of 1883–84, which report contains the latest statistics.

This report has been duly and regularly filed, since which there has been a regular session of the Legislature of the State, to which said report has been submitted, and is now a part of the records of such Legislature. This report has, in a printed, legible form, been distributed broadcast throughout our own State, and large numbers of copies of the same have been distributed throughout the whole of the United States, thereby giving the widest and fullest opportunity for investigation and criticism thereof. But as no criticism has been made, either to my personal or official knowledge, either by the State officials, Legislature, or the general public, or by any individual, said report at this date stands as a true and uncontradicted statement of the convict labor, so far as it goes.

From your communication I draw the following interrogatory, viz.:

"What device can be recommended to put a stop at once to the employment of convicts in any line of business that competes with the product or system of free labor?"

In the Constitution of the State of California we find a section which reads as follows, viz.:

Art. X, Sec. 6. The labor of convicts shall not be let out by contract to any person, copartnership, company, or corporation, and the Legislature shall provide by law for the working of the convicts for the benefit of the State.

In accordance with the provisions of this section of the Constitution, the Legislature of our State, at the session of 1880, passed an Act entitled "An Act to define, regulate, and govern the State Prisons of California."

Sections 21, 23, and 25 of said Act refer to the labor of convicts. The following is a copy of said sections, viz.:

Sec. 21. * * * A Board of State Prison Directors of this State shall require of every able-bodied convict confined in a State Prison as many hours of faithful labor, in each and every day during his term of imprisonment, as shall be prescribed by the rules and regulations of the prison. * * *

Sec. 23. All convicts not employed on contracts may be employed by authority of the Board of Directors, under charge of the Wardens and such skilled foremen as he may deem necessary in the performance of work for the State, or in the manufacture of any article or articles which, in the opinion of the Board, may inure to the best interests of the State; and the Board of Directors are hereby authorized to purchase from time to time, such tools, machinery, and materials, and to direct the employment of such skilled foremen as may be necessary to carry out the provisions of this section, and to dispose of the articles manufactured and not needed by the State, for cash, at public auction, or otherwise. If by auction, after having first given notice of such sale by advertising the time and place thereof, together with a list of the articles to be sold, in ten consecutive issues of two or more daily newspapers of general circulation published in the City and

County of San Francisco. The money received from the sale of all articles so sold shall be paid into the State Treasury by the Warden of the prison, to the credit of the fund of said prison.

SEC. 25. After the first day of January, 1882, the labor of convicts shall not be let out by contract to any person, copartnership, company, or corporation by the State Board of Prison Directors, nor shall they let out any such labor prior to January 1, 1882, by contract extending beyond such date; *provided*, that after the passage of this Act, no skilled convict labor shall be let or contracted out at a price less than one dollar per day for each convict; *provided further*, that this section shall not apply to contracts heretofore entered into.

The foregoing sections make up all of the legislative provisions concerning convict labor, and with all deference to the framers of the law, it is confessed, or it should be so, that it only furnishes an indication of what should be done, and it has been found from testimony before me, to be very malleable material in the hands of a few interested parties.

There is no doubt in my mind that it was the intention of the framers of the Constitution, and of those who legislated upon it, to abolish convict labor, and to establish something better in its stead, in favor and in the interest of free labor, and for the benefit and advantage of the State, such as weaving hosiery, making clothing, and boots and shoes, all of which is utilized for the convicts themselves. Against this no objection can be urged, since the State, if it purchased in open market the clothing of the convicts, would get that of the very cheapest quality, upon which no money is made.

The complaint is against the employment of the convicts in the various businesses—among them being the leather, harness, and saddlery, furniture, stone and brick work, blinds, sash and doors and windows, and stonecutting.

There is no doubt that the intention of the framers of the Constitution, and those who legislated upon it, has not been carried out or accomplished, and that the old evils have been and are being perpetuated, although under a new and different name.

One of the duties devolved and imposed upon me, can be found in Section 3 of an Act entitled "An Act to support and establish a Bureau of Labor Statistics," which reads as follows, viz.:

SEC. 3. The duties of the Commissioner shall be to collect, assort, systematize, and present * * * statistical details relating to * * *

Eleventh—The number, condition, and nature of the employment of the inmates of the State Prison, and to what extent their employment comes in competition with the labor of mechanics, artisans, and laborers outside of these institutions.

This section empowers me, as the Commissioner, to gather and present the information from which an answer can be made to your interrogatory.

Before I entered upon an official investigation of the convict labor question, I deemed it well to secure the opinion of the Attorney-General of our State; the following correspondence being the result:

OFFICE OF THE STATE BUREAU OF LABOR STATISTICS, SAN FRANCISCO, March 14, 1884.

Hon. ED. MARSHALL, *Attorney-General, State of California:*

DEAR SIR: In compliance with the request of Hon. Jno. P. Dunn, State Controller, we forward to you copies of the propositions of J. C. Johnson and Company, and the California Furniture Manufacturing Company, accepted by the Board of State Prison Directors February 26, 1884. It is the immediate purpose of this office to institute an investigation into the contract system entered into between the Board of State Prison Directors and any and all parties for the use of convict labor. This investigation will be prosecuted under authority of an "Act establishing a Bureau of Labor Statistics," approved March 3, 1883. Any other information we may possess is at your disposal.

Yours, respectfully,

JOHN S. ENOS, Commissioner.

Office of the State Bureau of Labor Statistics, San Francisco, March 25, 1884.

Hon. E. C. Marshall, *Attorney-General of California:*

Dear Sir: On March 14, 1884, I had forwarded to your address copies of what is supposed to be contracts entered into between the State Board of Prison Directors and J. C. Johnson and Company, and also the California Furniture Manufacturing Company, which was accepted by them February 26, 1884. Will you be kind enough to forward to this office an opinion, as Attorney-General of this State, as to the legality of the action of the State Board of Prison Directors in accepting the propositions of the parties aforementioned. I most respectfully call your attention to Section 6, Article X, of the Constitution; also, to Sections 21 and 25 of "An Act to define, regulate, and govern the State Prisons of California," approved April 15, 1880.

Yours, respectfully,

JOHN S. ENOS, Commissioner.

Office of the Attorney-General of the State of California,
Sacramento, March 27, 1884.

Hon. John S. Enos:

Dear Sir: Your favor of the twenty-fifth instant received. Instead of the opinion which you desire, I will furnish you with a copy of the letter I addressed to the Board of State Prison Directors. This I cannot do, however, before Saturday next, since the copy is in my office at San Francisco.

Hoping this will be agreeable to you, I am very truly yours,

E. C. MARSHALL, Attorney-General.

Office of the Attorney-General of the State of California,
San Francisco, March 14, 1884.

Hon. John Boggs, *President of the Board of State Prison Directors:*

Dear Sir: A committee from the "Knights of Labor," and several employés of important industries, have represented to this office that a policy is being pursued by the Board which is not merely unfriendly to them, but already seriously injurious, and clearly in violation of the spirit of the Constitution and the policy of the Democratic party. It is stated that contracts are made with manufacturing and other firms in the City of San Francisco, by which material is furnished to the prison to be worked up by convict labor and the finished product returned to the contractors, at a price agreed upon, without competition. This must, to some extent, and does, I am assured by workmen, to a very disastrous extent, affect the labor market in those articles so produced, and gives control of wages to those controlling convict labor. It is, in fact, as they allege, a persistence in the old contract system prohibited by the new Constitution. You will remember that one (and a grave one) of the charges brought against your predecessors in office was precisely this policy, the only difference being that under the old Board the machinery was furnished by the contractors as well as the material. Now, I understand the practice at present is in effect the same as the old and open to the same objections. In the policy of the State, as to penal institutions, the *profit* on convict labor is the last matter considered. First, the safety of the people; second, the reformation of the criminal; and last and incidentally, the profitable application of the labor involved in carrying out the primary objects of all penal legislation. I understand the purpose of Section 6, of Article X, of the Constitution to be to prevent competition between convict and free labor, and that the Legislature is charged with the duty of providing for "convict labor for the benefit of the State," subject always to the principle above stated. Doubtless the attention of the Legislature will be called to this subject at an early day. It is at present badly or not at all regulated, but the Constitution is itself clearly prohibitory of the course now being pursued, and enlightened humanity recoils at the enormity of competition (already amounting to disguised war between *free* laborers) being exasperated by the introduction of convict labor. It is a blind and vile economy, and every dollar of profit realized from convict labor at the expense of employment or lower wages to the free laborer is, when thoughtfully considered, a hundredfold loss to civilization. I understand in the shop of Main & Winchester a very serious reduction of men employed has taken place and wages are threatened. The California Manufacturing Company and J. P. Johnson & Co., and, as I am informed, many others, are seeking contracts which I cannot but look upon as direct infringements of Section 6, of Article X, of the Constitution.

I beg to hear from you on this subject, and sincerely hoping that there may be no irreconcilable difference of opinion upon a question of growing importance, I am, respectfully,

E. C. MARSHALL, Attorney-General.

No reply to this letter to Mr. Boggs has ever been seen by me, but since the object of the correspondence was to show the position of the Attorney-General on the question, it was not necessary.

Thereupon some fifty subpœnas were issued and served upon our tradesmen, workmen, and others connected with the business mentioned, in which complaint was made against the employment of convict labor.

Before entering upon the investigation, I, as the Commissioner, made the following statement, viz.:

> Under Section 3, Subdivision 11, of an Act to support and establish a Bureau of Labor Statistics, it is made the duty of the Commissioner of this bureau to ascertain the number, condition, and nature of the employments of the inmates of the State Prisons, county jails, and reformatory institutions, and to what extent their employment comes in competition with the labor of mechanics, artisans, and laborers outside of these institutions. That is one of the duties assigned to this office, which it becomes my duty to investigate, and by virtue of that provision in the law, I am now commencing my examination on that subject. Under Article X, Section 6, of the Constitution of the State, after the first day of January, 1882, the labor of convicts shall not be let by contract to any person, copartnership, company, or corporation, and the Legislature shall by law provide for the working of convicts for the benefit of the State. Now, under that provision of the Constitution, the Legislature, by an Act to define, regulate, and govern the State Prisons of California, approved April 15, 1880, passed a law, of which Section 21, Section 23, and Section 25, bear upon that subject. [Reads Sections 21, 23, and 25.] Those are the sections that bear upon this question. Now, we notified the State Prison authorities of San Quentin to furnish us copies of proposals which they have entered into or which they have entertained, with different manufacturing establishments. They have furnished this office with two copies, and I take it for granted those are only two of the contracts, and we have written for further information. One is a contract, or a proposal, whatever they may call it, which is made by the California Furniture Company. [Reads copy of contract with the California Furniture Company.] They furnished us that, and then they furnished us also a proposition—copy of proposition made to J. C. Johnson & Co., in relation to the tanning of hides. [Reads proposition made to J. C. Johnson & Co.] Now, I make this statement to show what has been done for the purpose of instituting this investigation, and I will say, briefly, that I am anxious to hear both sides; that this question has been thoroughly ventilated in many of the Eastern States—New Jersey, Ohio, New York, and most of the Eastern States; for instance, in Massachusetts, as early as 1878, the Legislature passed a resolution, which is as follows, upon this question: [Reads.]
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> "*Resolved*, That the Bureau of Statistics of Labor is hereby authorized to make a full investigation as to the kind and amount of work performed at the penal institutions of this State, and as to all facts pertaining to the same, and to recommend such legislation as is advisable, to prevent competition between said labor and other industries of this State, and report the same to the next General Assembly."
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> In New York the question of convict labor was agitated by the people, so much so that the Legislature submitted to the people last fall whether they would do away with convict labor, and on a vote of 673,000—the largest vote ever cast for an amendment—they gave a majority of 138,000 for the abolition of contracting convict labor. So it is no new question, and it is one, I think, very properly we should investigate.

The testimony taken was voluminous. Part of the investigation was devoted to a consideration of the question whether the system of conducting the State Prisons interfered with the discipline, but as that is foreign to your interrogatory I will pass over that. The question was fully considered by all sides, pro and con, and after the formal investigation was closed, informal discussions were held, in which every branch of the subject was ventilated and its bearing touched upon.

I am convinced that this subject is one of the most abstruse and complex in modern legislation. In this conclusion I am well supported by the following opinions:

In the second annual report of the Bureau of Labor Statistics of Illinois, I find the following upon the question, viz.:

> The employment of the criminals of the State in our two penitentiaries, under contractors, who secure their services at low rates of wages, and thus are enabled to place the products of that labor in the market frequently at ruinously competitive prices, constitutes an injustice alike to the manufacturers and to the honest workingmen of the State, against which they make constant and earnest protest.
>
> It is recognized that on humanitarian, sanitary, and other grounds, occupation of some kind should be given to State prisoners; but it is objected that under the present system the labor of convicts is so contracted as to operate injuriously upon many skilled occupations in civil life, by rendering a reduction in wages necessary to enable employers to compete with penitentiary contractors. The plea urged in support of this system, that it renders our penal institutions nearly or quite self-supporting, is not recognized as either

justifying the system or as constituting a permanent desideratum in public policy. The welfare of the industrious and honest citizen is of higher import to the State than any merely economical consideration in administering the affairs of its penal institutions. By the contract system the cost of the criminals of the State is indirectly imposed, in unequal measure, upon those least able to bear it—upon the workingmen themselves, who are compelled to compete with prison labor in order that the prisons may be made self-supporting.

Among the suggestions urged as partial remedies, at least, for this evil, is the employment of convicts under prison management, the goods manufactured to be sold at market rates, and the profits, if any, to accrue to the prisoners upon their discharge, or to their families during incarceration, or to the State. Another is the employment of convicts, so far as possible, upon public works involving but little skill, as in the manufacture of macadam for a system of public highways. Still another comes from the Warden of the new Southern Penitentiary, who urges that prisoners at that institution be employed in the making of brick and quarrying of stone, for which the opportunities at Chester are specially good, rather than in the more skilled occupations under contractors.

In the last annual report of the Michigan State Bureau of Statistics, the following is said, viz.:

HOW SHALL THEY BE EMPLOYED?

The people of this State have embraced in the Constitution this provision:

"No mechanical trade shall hereafter be taught to convicts in the State Prison of this State, except the manufacture of those articles of which the chief supply for home consumption is imported from other States and countries."

Irrespective of the question of the wisdom or unwisdom of such a provision, it is nevertheless a part of the organic law, and it is at least questionable whether the State should not submit the question of its propriety to the people before violating the letter and spirit of a constitution which it expects the people to respect.

Concede that they should be employed, yet the object of their employment is not alone pecuniary profit to the State. The mental, moral, and physical condition of the prisoner during his detention and at the time of his discharge, has entered largely into the question of the policy of his employment. The desire to make these institutions in a measure reformatory as well as punitory, and that the State may to some extent be relieved of the burden of the support of criminals, together led to their employment.

The purpose of the detention of a prisoner should never be lost sight of while the detention continues; the short time prisoners should be subjected to reformatory or educational treatment as well as the long-timer.

If in thirty days a convict can be instructed in the alphabet of any industrial art, to which he can turn his energies after his discharge, or if he can be taught that industry is the best policy, he should be so directed, even at a cost to the State.

The manufacturer complains that the articles manufactured in our penal institutions come into competition with goods which he manufactures, and the wage-worker insists that the wage market is being further depressed by convict labor, sold for less than will support the convicts while engaged in it, or its product sold for less than free labor can produce it.

It has occurred to us that these results are felt, because of the contract system, whereby the contractor obtains a great advantage over other manufacturers, and because where the contract system does not prevail, the institution is being carried on with unlimited capital and credit, with large buildings and capacity, without taxes, as a great manufacturing enterprise, where the cost of maintenance is from eleven to nineteen cents per day, and where, for a large percentage of its operatives, it receives pay for their board at a rate which covers, if not exceeds, the expense of their maintenance, and that if the contract system were abolished, and these institutions operated with a view to the reformation of their inmates, as corrective schools rather than manufactories, treating their labor as labor should be regarded, not only in prison but out of it, as an incident, as a means—not an end—there would be less cause for complaint.

CONTRACT SYSTEM.

The contract system should be abolished, because:

First—The contractor has no interest in the prison except in his ability to produce. The prisoner is the ward of the State. His employment is a means, not an end, and no contractor with arbitrary rules as to time, etc., should come between the prisoner and the State. The incentive to labor should be shortened terms, care for dependents, and payment of a stipend when discharged. These men are required to work an average of ten hours per day for the year—eight and one half hours in midwinter, and eleven and one half hours in midsummer, and they work diligently. They haven't the relief incident to outdoor labor—no rainy days; all their time is employed except nights and Sundays. Is it not idle to expect reformatory or educational influences to be exerted, except those incident to industry, or to operate upon men who work ten hours per day? The inmates are tired, the keepers have been with the men all day, and the Warden or Superintendent has been engrossed with the management of the financial and commercial transactions of the prison.

Second—The sale of the product should be regulated by the State.

Third—If there is any profit in his employment, it should not go to the contractor. If the contract system is retained, the State should own the plant and machinery, as well as the shops, and thus open a wider field for competition.

The report of the Bureau of Industrial Statistics for 1882–83 of Pennsylvania follows in a similar strain. It first speaks of imported contract labor, charging that contractors through agents import pauper labor from Europe, and declares that this is not only rank injustice to the working people of the commonwealth, but that the competition created by the importation of these ignorant and degraded paupers, lowers the social and moral position of the home workingman.

To the contractor, the gain is but for a moment, while the evil to the community is lasting, and the contract system is a blow at the interest of both labor and capital.

Applying these remarks to the subject of convict labor, the chief of the bureau writes as follows:

CONVICT CONTRACT LABOR.

The same objections are urged against the system of convict contract labor in our prisons and penitentiaries, and is a subject which has agitated the minds of the working classes in a number of the leading manufacturing States for a number of years. It has, in fact, the same effect in lowering the standard of wages and depriving the honest workingman of the just reward of his labor, whilst there is not the same appearance of reason to justify it. Two reasons, among others, have been given in justification of contract labor: 1. The reduction of prison expenses, and the relief from general taxation to that extent; and 2. The elevation of the criminal by occupying his time in a useful and honorable pursuit; by promoting in him habits of industry, and in so educating him that at the end of his term of imprisonment he will have acquired the habits, knowledge, and disposition which will enable him to earn an honest living. It has been found, however, that the convict contract system tends to degrade, not elevate, the prisoner. The contractor, holding his labor in contempt and actuated solely by his own selfish purposes, treats the prisoner as outside the pale of humanity. The direct expense is saved to the State, but the degradation of the prisoner is increased. The practical effect of prison competition has been found to be the production of articles at so small a cost as to defy the competition of honest and law-abiding labor. The standard of honest wages is prejudiced, governed, and controlled by criminal labor. Under the convict contract system, capital which regards labor as a brutal machine, obtains an advantage over capital which employs honest men and seeks to elevate and benefit the working classes. The evils resulting to the working people by the introduction of the unfair competition of imported pauper labor, are the same as from contract convict labor, whilst the objection of such importation is solely a temporary advantage gained by the contractor.

The foregoing extracts, I am satisfied, afford all the evidence that is needed to convince your committee of the very great importance of the subject of convict labor, and I further say that it forms a major part of every report made by the other Bureaus of Labor Statistics throughout the country.

After a due and just consideration of all the matters and facts brought before me, I have come to the conclusion that the law aiming to do away with the evil has not yet been successfully carried out and enforced. In a sense the matter stands thus: Prior to the Act of 1880, which went into effect on the first day of January, 1882, a few firms practically controlled the prison at San Quentin by contracting to furnish the convicts with labor at so much a day.

This was seen to be wrong, and by the provisions of said Act the contract system was done away with, and in lieu thereof it was ordered that the State should supply the labor and motive power to whoever wished to engage them, and then that the product should be sold at a reasonable rate.

Practically this idea and order has not been carried out, and the old contract system is still as active as it ever was, although under a different name.

Instead of contracting to pay so much per day for convict labor, the firms who now make use of a State institution contract to pay so much for the product of that labor.

The result proves that the evil complained of under the contract labor system, viz., that of firms paying a very low rate of wages, were enabled to have made for them articles at such a price that it would be impossible for any other manufacturer, who was not enjoying the benefits of such a contract, to produce similar goods at any thing approaching a similar price.

Under the present system a few firms contract to take from the prisons all goods that are manufactured there, at certain prices; but these prices, like the wages they paid, are so low that they once more receive their goods at a rate which enables them to place the goods upon the market at a figure which no outside firm can compete with.

What difference does it make, then, whether the firms pay a certain wage or pay a certain price for the product, when wage and price are both so low as to be ruinous?

Whether it was per day or price per piece, the result is exactly the same. It is simply a case of evasion, by which the poor workingman, who is not in the State Prison, is being rapidly driven out of employment and ground down to starvation wages. The question here arises, how does the State fare in this case of change without alteration?

My opinion is that the State fares worse than ever. The firms doing the business at the prisons have not afforded me any opportunity to disprove this, although I have made every effort to get such information on that matter as could be had, as regards to furniture business.

The non-success in that direction, so far as the contractors were concerned, has been partially offset by my success in procuring, from an outside source, a schedule of prices paid by the sash, door, and blind contractors at said prison.

I refer to the following letter, furnished me by one of the largest manufacturing companies, in the same line, in this State:

* * * Regarding the disadvantageous relation occupied by manufacturers employing free white skilled labor, in competition with convict labor producing the same articles at California State Prison, the situation can be best illustrated by a statement showing the operations of a single month, and comparing same with the cost of a similar output manufactured by free white labor, men and boys, outside the prison walls. For example, take the ascertained monthly result in the case of California Door Company, occupying nearly one half the prison shops and manufacturing facilities. The State furnishes a brick building 60x200 feet, four stories, with power, shafting, elevators, etc.; also space for piling lumber, drying kilns, and heating facilities. For the month of June the articles turned out, at prices opposite each item, were very nearly as follows:

11,500 doors all kinds, average 24 cents	$2,760 00
8,000 pairs 1¼ and 1½ sashes, average 13 cents	1,040 00
1,500 pairs outside blinds, 25 cents	375 00
750 sets inside blinds, 75 cents	562 50
1,000 transoms, 5 cents	50 00
	$4,787 50
State paid for supervising free labor, say	1,300 00
Leaving net amount received for month	$3,487 50
Out of this, take for rent of land occupied by lumber, rent of these immense shops, cost of power, wear and tear, etc., a low estimate would be, per month	700 00
Leaving to the State for convict labor	$2,787 50

Number of convicts employed, estimated on a pro rata basis of other months, would be 295; the amount received by State per convict per day for 26 working days being less than 38 cents each. When it is considered that the State maintains these prisoners at an alleged cost of 44 cents each per day, the money result above shown seems grossly inadequate. These convicts, it is admitted, do good work. They are allowed 10 cents per day each for good performance, in the shape of a fortnightly credit of $1 20 each at commissary's store; supposed to be paid by door company. This "douceur" of 10 cents per day is understood as an *additional* sweetener to California prison life, making the California

State Prison all the more fashionable and pleasant as a resort for criminals, small and large. That it is, in that respect, altogether too popular, is evidenced by the very large proportion of our population seeking its fine accommodation. Aside from shorter hours, these convicts doubtless produce as much per man as would average hands in similar establishments outside the prison. No comparison can be made with any factory as large in this State, as none could exist while this remains. It may be safely estimated that the payroll of a similar establishment, working free white men and boys, and making the same monthly output, would be at least three and a half times (for the same work) the amount received by the State for convict labor, boarded and clothed by the State. Regarding a statement of Warden Shirley, made last April before Hon. Commissioner of California Bureau Labor Statistics, that "State Prison productions of doors, sash, and blinds was less than one per cent of home consumption," it was then more than one third, and has for several months been more than one half of all the factory products of that line of goods within the State of California.

As regards the prices paid for the product of the harness and tannery departments, I was successful in getting them, but not in such detailed form as could be wished for.

The following is a list of prices paid by the firms for prison labor in tanning leather, per side, viz.:

Alum leather	25 cents per side.
Skirting leather	34 cents per side.
Harness leather	46 cents per side.
Putting sheep skins through	$1 per hundred.

And the prices paid the trade are given in the following statement, viz.:

BENICIA, CAL., March 4, 1884.

To J. S. ENOS, *Commissioner Labor Bureau:*

Cost of labor for making collar leather, per side:

Labor in beam house	$0 15
Labor in tanyard	8
Labor in splitting and shaving	8
Labor in scouring	4
Labor in setting and stuffing	6
Labor in blacking	6
Labor in finishing	4
	$0 51

Add to this insurance, taxes, night watch, engineer, teamsters, incidentals—such as machine oil, all repairs—it will actually make the cost, say—

As enumerated above	51 cents per side.
The added expenses	20 cents per side.
Total	71 cents per side.

These are bedrock prices.

Cost of skirting leather:

For labor in beam house	$0 18
For labor in yard	9
For labor in skiving	6
For labor in scouring	6
For labor in setting and stuffing	8
For labor in finishing	4
	$0 51

Add to this enumerated items in No. 1, and the cost per side will be 71 cents.

For harness leather, per side:

Beam house	$0 18
Yard	9
Shaving	6
Scouring	6
Setting and stuffing	9
Blacking	9
Finishing	9
	$0 66

Add to this expense as per list No. 1, which must take place on all grades of leather the same, and we find that 86 cents per side is the actual cost of common harness per side, as far as labor is concerned.

Labor on alum-tanned leather, per side:

Beam house	$0 15
Yard	7
Setting and stuffing	5
Finishing	6
Measuring and gum	2
	$0 35
Add to the above	17
	$0 52

Which is the actual cost per side for alum leather.

Dear Sir: I have this day sent to your office cost of making leather outside the State Prison, at wages ranging from $2 00 to $2 50 per day. This statement will bear the light of day, as I am willing to submit the prices or cost per side to any three practical tanners of this State.

You will see by this statement that the Prison Commissioners are offering to do the work at ruinously low prices. The State would not get more than board for the men at the rates they work the convicts at San Quentin.

Very respectfully yours,

J. R. BROWN & CO.

The product of boots and shoes, tinware, and clothing are made by the convicts for the use of the convicts, and not being put on the market, does not come within your interrogatory; while the jute factory, being a State industry, belongs to a branch also not embraced within your interrogatory.

The following is a list or statement of the number of prisoners confined in the State Prisons of our State, and their various employments, according to the latest statistics in this office, viz.:

STATE PRISON AT SAN QUENTIN.

On the first of September, viz.:

Chair department, 103; door department, 191; jute mill, 288; tannery department, 13; harness department, 26; foundry department, 8; engineer department, 15; general kitchen, 45; hospital kitchen, 6; outside kitchen, 15; laundry department, 29; house servants, 37; scavengers, 10; sweepers, 13; whitewashers, 7; tailor shop, 12; shoe shop, 12; cooper shop, 1; paint shop, 5; tin shop, 4; carpenter shop, 3; barber shop, 10; vegetable gardens, 8; flower gardens, 4; chicken ranch, 2; hog ranch, 1; brickyard, 74; Captain of Yard's office, 4; Turnkey's office, 4; Warden's office, 4; Clerk's office, 2; Commissary Department, 7; cell and room tenders, 30; blacksmiths, 6; stables, 18; coal yard, 1; upholsterer, 1; belt maker, 1; "hoodoo" (general work), 40; lumber yard, 9; library, 7; hospital nurses, 2; patients in hospital, 11; door tenders, 6; gate tenders, 8; cripples and imbeciles, 25; dentist, 1; physician's office, 1; females, 13; unemployed, none. Total number of prisoners, 1,143.

STATE PRISON AT FOLSOM.

There are 479 prisoners on the register of the prison at this date. They are employed in the granite quarries in the prison yard, and in the improvement of the prison tract; and also in the various occupations needed for the carrying on of a prison. For the offices and stores, messengers, bed makers, and hospital, 20; invalids or incapables, 15; tailor shop, 6; shoe shop, 2; butcher shop, 1; carpenter shop, 7; tin shop, 3; blacksmith shop, 17; wagon and repair shop, 2; paint shop, 4; plumbers, 2; engineer department, 12; gas-house, stable, wood sawyers, wood carriers, sweepers, general help in prison, cell tenders, whitewashers, officers' dining-room and kitchen, prisoners' dining-rooms and kitchens, gardeners, freight handlers, water carriers, lamplighters, teamsters, night cooks, gate tenders, 113; laundry, 12; barbers, rope-room, riggers, wood choppers, ox drivers, graders, tool carriers, 37; wall builders, 5; stone-cutters, 30; rough dressers, 30; derrick men, 20; quarrymen and shovelers, 141. There are none unemployed, except those noted as "invalids or incapables," and these are men who are crippled, or of unsound mind, or convalescing patients. There are but two in the hospital, and one is the nurse. The prisoners labor diligently, and show an interest in their work. Every man who is able to work is employed; the one female prisoner is also employed in the Turnkey's office and as seamstress.

This system, which is called the contract or proposition system, does an injury to both workingmen and manufacturers.

The injury to the workingmen is that for the making of certain classes of goods a wage is paid that those on the outside cannot afford to work for. The injury to the manufacturer is that these goods are produced at a cost which is altogether below that entailed in the ordinary cost of production.

It is true that the firms who do business with the State Prison furnish the material, pay the skilled labor—that is, the foreman and their assistants—pay for freight and hauling, and in one instance own the machinery; but all these, leaving the low prices out of consideration, do not place the non-contracting firms on equal terms with those whose propositions have been accepted.

These employers of prison labor pay no rent for warehouses, factories, etc., and were put to no expense in erecting them; have no insurance to meet, and no taxes to pay.

It is claimed that the holders of these propositions enjoy their privileges in legal and due form, and that every effort has been made on the part of the State officials to secure the best prices for the products.

Whether this has been done, or is the case, it is not in the province of this office to determine; at any rate, it should be a legislative matter for inquiry, and I so recommend it, as well, also, the financial part of the question, so far as the State's interest is concerned, as I think that it would be an interesting inquiry to ascertain how the expenses and receipts under the present system compare with those of the old.

Coming to the intention of the framers of the Constitution of our State and those who legislated upon it, I will say that their very intentions were that the State of California should work its prisoners on its own account. To sustain this view, I will state that during the prevalence of the old system, and at the session of the Legislature of 1873–74, an Act was passed which provided that the State should work the prisoners on its own account. The Act, as passed, *raised* the price of convict labor to the sum of one dollar and ten cents per day.

Newton Booth, Governor of the State at that time, for some reason at this time unknown to me, vetoed the bill.

Prior to and up to the time of the veto of the bill by Governor Booth, it was met with the hearty concurrence of every member of the State Prison Committee of both Houses of the Legislature, but after the veto, and at a joint meeting of the committees, to which Governor Booth and Lieutenant-Governor Pacheco (also acting as Warden of the State Prison at San Quentin) were invited, and there was a division of sentiment between those two gentlemen, Mr. Pacheco reasoning that the proposition should be given a chance, or trial, claiming that on no account could it be detrimental to the interests of the State, yet the bill failed to become a law, and the matter dropped for a time.

The next move in the way of legislation is hereinbefore fully set forth.

After examining this question extensively, ever since my attention has been called to it, I believe that I can demonstrate beyond a doubt that the State can (as the Constitution and law directs) successfully employ the labor of these convicts for its own benefit.

The contract system is, in my opinion, destructive to prison discipline. I am borne out in this respect by such writers as Pillsbury and De Tocqueville, who are well informed on the subject.

De Tocqueville says that the contract labor system will lead to a total ruin of prison discipline.

Judge Powers, in his works, says the mode of employing convicts is attended with considerable danger to the discipline of the prison in bringing convicts in contact with the contractors or their agents, therefore it is a necessary consequence that the State must be loser by this contract system. Contractors get the labor of three convicts for about the same price they could get one free man, and yet each convict performs at least three quarters as much work as a free man.

Putting these elements together, the case stands thus: The labor of twelve convicts will cost no more than the labor of four free men, yet the convicts will do nine days' work while the others do four; thus every dollar paid to convict labor will produce as much as two dollars and twenty-five cents expended in free man labor; therefore the State must be the loser by the contract system which sells the labor of these convicts at so much less than the same labor can be obtained elsewhere. It is a burden upon free laborers for the State to contract the labors of these prisoners.

In the first place, the contract system amounts to an absolute monopoly, from the very fact that the contractor owns and holds the whole of the labor of said convicts and their products. They are established in their business, and no one else can come in. They can regulate their prices so as to keep out all other parties. Contractors sometimes combine to keep down the rates to be paid for prison labor. When the Folsom Branch Prison was to be built, certain contractors paid the others certain stipulated sums on condition that they decline to put in bids, thus obtaining the convicts at much lower price than they otherwise could.

Former Wardens of our State Prisons, and Wardens and Superintendents of eastern prisons, say that if the contract system was abolished in the prisons, the prison labor could be managed in an advantageous manner and considerable revenue earned for the State, and without any competition with free labor.

The eminent men who have had experience in this matter say so, among them being Miller, Wood, Brockway, and Mr. Seymour, ex-Warden of the Sing Sing Prison.

In the Clinton State Prison contract labor has been abolished. The same can be said of New York, Wisconsin, and even in England we find that the contract system has been abolished.

The only objection to abolishing the contract system, and that was urged against the clause in our Constitution by the few who opposed the clause, was that the convicts would be kept in idleness for more than a year, or until the necessary preparations could be made. But those who did so oppose it were willing to, and did give an expression in favor of abolishing the system of contract labor, and were in favor of working the convicts as much as possible for the benefit of the State, by which the whole of the people would be benefited.

This whole system is wrong. The labor of these convicts goes for mere nothing.

The laboring classes of our State, both single and those having families to support, cannot compete successfully, or at all, against such things.

Having presented as clear and complete a statement of the matter as possible, I beg now to offer to your honorable body, through you, gentlemen, as its committee, the recommendations as to the future policy of utilizing convict labor, that I have already made to his Excellency George Stoneman and the Twenty-sixth Legislature.

This is as far as the duties of my office extend, although at any and all times I am, and always have been, willing to transcend said duties whenever it is a benefit and advantage to the laboring classes of our State; but in your case all that I can say upon the matter is herein contained, and my recommendations aforementioned are as follows:

First—That the contracts known as "propositions," now in force, shall be annulled.

Second—That if it be decided to give the present system a further trial, that the Wardens of the State Prisons shall immediately cause to be published in two San Francisco daily newspapers, of the largest general circulation, notices of proposals for manufacturing to be carried on in the said prisons in such branches of industry as to the Wardens and Board of Prison Directors seem best adapted to the discipline of the prisons, and the remunerative employment of the convicts.

Third—That no proposal, so advertised for, shall be accepted, unless under the following conditions:

(a) The party, or corporation, or firm, making such proposal to the State, shall pay such reasonable rent for the use of shops, store-room, steam power, and machinery (where the machinery is owned by the State) as are required to carry on such industry as the Wardens and Directors may consider just and proper.

(b) That, when any machinery, not now owned by the State, is needed, the party, corporation, or firm making such proposals, shall agree to put such machinery in place at their own expense; and to remove it without expense to the State, when the time limit of the proposal has expired.

(c) That the said party, corporation, or firm, shall also agree to furnish all other appliances necessary to the industry, and all the raw material used in connection therewith.

(d) That, on their part, the Wardens and Directors shall agree to keep all the machinery, whether owned by the State, or not, in proper repair, and to return to said party, corporation, or firm, whatever machinery may belong to them in as good condition as when received, natural wear and tear and unavoidable accidents excepted.

(e) That the party, corporation, or firm, shall furnish and pay the necessary skilled instructors and foremen, but that these, while so employed, shall be under the control of proper officers of the prisons, and that they shall in no way interfere with the discipline of the convicts.

(f) That monthly settlements shall be made between the Wardens, and such party, corporation, or firm, whose proposal has been accepted.

Fourth—That it shall be the fundamental provision in the transactions, between the State, and party, or firm, or corporation, that these transactions shall be based upon the market price of such articles as form the subject of the proposals; and that, in no case, shall a price be agreed upon that is not a fair market rate, that is not a commensurate return for the State's outlay, or that would allow such party, corporation, or firm, to enter into an unjust competition with the free labor of the State.

Fifth—That rather than such unjust competition should be practiced, or that the State should be made the instrument of an injurious opposition to manufacturers and free men, engaged in similar businesses on the outside, or that a system should be carried on under State control, tending to loss of employment or reduction of wages, the convicts of our State Prisons should serve their terms in idleness.

Sixth—That the maximum number of convicts to be employed in the State Prisons, in any industry, shall not exceed five per cent of the number of free mechanics employed in that identical industry in the State; and that in no case shall the product of the convicts, working under these proposals, exceed five per cent of the product of the free manufactories engaged in similar industries, except in the case of jute.

Seventh—That the attempt should be made to establish and carry on in the State Prisons such industries as are not already conducted in California; a plan by which all competition with free labor would be at once avoided.

Eighth—That the labor of the convicts be utilized in the manufacture of such goods and articles as the State requires for its different offices, establishments, and institutions; and that the State be a direct and *first hand* customer of the State Prisons' industries, instead of buying second hand those goods and articles that are made within its own prison walls.

Ninth—That wherever practicable convict labor should be employed in the erection, maintenance, pursuit, and repair of State and county institutions and works.

Very respectfully, yours truly,

JOHN SUMMERFIELD ENOS,
Commissioner of the State Bureau of Labor Statistics of the State of California.

As a result of said investigation, the following correspondence was had between said Federated Trades Council and your Excellency, viz.:

San Francisco, April 12, 1886.

To his Excellency George Stoneman, *Governor of California:*

Dear Sir: As citizens of this commonwealth, and as a committee from the Federated Trades Council of the Pacific Coast, we desire to call your attention to a matter of general concern which has received considerable attention in every civilized community, and has occupied the thoughts of philanthropist and legislator with more or less result for many years. We refer to the employment of convict labor, and will premise our remarks by saying that with the philanthropic or reformative phase of the subject we have nothing now to do, though, should those concerned desire it, the council will at all times stand ready to give such suggestions or advise as the reading, observation, or experience of its members shall demonstrate to be wise or for the welfare of the prisoner and the public.

The Federated Trades Council, which we have the honor to represent, is a central representative body composed of delegates from fifty-four trades and labor organizations, with alliances in Sacramento, Stockton, and Los Angeles, who claim a right to be heard in this matter, as they are the parties especially interested in its proper settlement.

After considerable preliminary investigation, which has been productive of useful and valuable information, the conclusion has been reached that the first direct practical remedy for certain evils that we complain of must come from the Governor himself.

Our chief complaint is that, as formerly and at present operated, the inmates of the prisons are brought into direct and ruinous competition with the free laborers of the State, notably in stone-cutting, cabinet-making, tanning, harness-making, and the manufacture of sash, doors, and blinds, and that the above avocations are carried on by the prisons and the product disposed of in direct violation of law.

The State Constitution provides as follows, Article X, Section 6: "The labor of convicts shall not be let out by contract to any person, copartnership, company, or corporation, and the Legislature shall provide by law for the working of the convicts for the benefit of the State." At the session of 1880 the Legislature passed an Act entitled "An Act to define, regulate, and govern the State Prisons of California," under which the prisons are now operated, and by which the Board of Prison Directors may think themselves able to justify such operation.

Both the organic law and the Statute of 1880, Section 25, are explicit in declaring that the labor of convicts shall not be let out by contract, and yet we claim that the Board of Prison Directors are doing that very thing, every day and every hour in the day, in spite of the Constitution adopted by the people and the later legislative enactment of the representatives of the people.

Without using any verbal refinements, either in statement or argument, we think that you will agree with us that the prime, if not the only motive which prompted the creation of these laws, was to prevent the competition of prison labor with the labor of free men, and for obvious reasons. That it is the duty of the Board of Prison Directors to carry out these laws in their letter and spirit. That if there is any discretion to be exercised by them as public servants it should be used in every instance to avoid any friction between the prisons and the industrial interests of the State, and if in such an administration of prison affairs the results should not be satisfactory, then they should relegate the matter to the representatives of the people, or to the people themselves, disavowing all responsibility by merely showing that they have in all things been guided by the law which they have sworn to support, and which as faithful public servants they could not refuse to obey.

Why is it, then, that the contract system still governs in the prison management, and, though its method is a little altered, the evil is as pronounced and mischievous in its results as though the people had not declared against it, both by themselves and their representatives?

There can only be one answer: The Directors are superior to the law in that they can and do refuse to regard it.

We would respectfully call your Excellency's attention to the sixth annual report of the State Board of Prison Directors for the thirty-sixth fiscal year, ending June 30, 1885, in corroboration of the above.

On page 11 the Warden of San Quentin reports that the sash, door, and blind department is operated "by the manufacture at a stipulated price per piece, private individvals owning the plant and the State furnishing power and *labor*." Furniture department: "By the manufacture at a stipulated price per piece, private individuals supplying all the materials, and the State owning the plant and supplying power and *labor*."

Tannery and harness department: "By the manufacture at a stipulated price per piece, private individuals supplying all raw materials and the movable plant, and the State supplying the permanent plant, the power, and *labor*."

Thus with a directness and want of equivocation, which would be admirable if they did not manifest such a thorough and self satisfied disregard of serious obligations and duties, our Prison Directors report to you as the Governor of the State their continued wanton violation of the law of the State.

For, in what other way than by contract with some "person, copartnership, company, or corporation," can they operate either the sash, door, and blind or any of the departments named "at a stipulated price per piece, the State furnishing power and *labor?*" Or what difference is there in fact or in law whether the contract for the delivery, at a stipulated price, of the labor of the convict for one day, or for the delivery of the result of the convict's labor for that day? Could such attempted evasion of a manifest duty be made by any one in the execution of a private trust without a tainted reputation for good faith and business integrity? Does not the stipulation as to the price import a contract?

Referring to the valuable and interesting report of Labor Commissioner Enos to this council, dated March 8, 1886, we find abundant evidence, if any more were needed, to justify this complaint.

On page 11 of the report will be found the prices realized by the prison in tanning leather; also a statement of the lowest cost of the same leather as produced by free labor. We summarize as follows:

	Prison.	Free Labor.
Alum leather, per side	25 cents.	52 cents.
Skirting leather, per side	34 cents.	71 cents.
Harness leather, per side	46 cents.	86 cents.

These free labor prices are based on wages of from $2 to $2 50 per day, certainly not munificent, and the witness further says the State could not "get more than board for the men at the rates they work the convicts at San Quentin."

On page 10 of the same report, one of the largest manufacturing sash, door, and blind companies in the State writes: "The amount received by the State per day per convict is less than 38 cents, while the State maintains the same convicts at an alleged cost of 44 cents per day. It may be safely estimated that the payroll of a similar establishment working free white men and boys and making the same monthly output would be at least three and a half times (for the same work) the amount received by the State for convict labor, boarded and clothed by the State. * * * Regarding a statement of Warden Shirley made last April before the honorable Commissioner of California Bureau of Labor Statistics, that State Prison production of doors, sash, and blinds, was less than 1 per cent of home consumption, it was then more than one third, and has for several months been more than one half of all factory products of that line of goods within the State of California."

Referring to the Directors' report already mentioned we find 561 convicts at Folsom employed directly or indirectly in the single industry of quarrying and dressing stone for this market, with what effect upon the wages and welfare of free stone-cutters may be readily inferred from what has gone before. Indeed the Directors confess themselves (see report, page 6) that "the general depression in business and the *fierce competition* of others engaged in the business of quarrying stone, have caused a diminution of the demand for such material from the prison." Fierce, indeed! The competition must needs be fierce.

It is a fight for very life, for the only capital the free stone-cutters have is the trade they have acquired by a faithful apprenticeship, and that the State is trying to destroy.

If a corresponding benefit to the State could be shown to counterbalance such shameful results we might be content with silence, but these institutions cost the State $220,000 annually for maintenance over and above their alleged earnings.

We think the State has a greater interest in conserving the welfare of its honest and law-abiding industrial population than in attempting to play the philanthropist with murderers and outlaws; that laws are instituted for the protection of honest industry, not for its persecution, as well as for the punishment of crime.

The reformation of the criminal must not involve any injury to the citizen, and as is well said by the Labor Commissioner of Illinois:

"The welfare of the industrious and honest citizen is of higher import to the State than any merely economical consideration in administering the affairs of its penal institutions. By the contract system, the cost of the criminals of the State is indirectly imposed in unequal measure upon those least able to bear it—upon the workingmen themselves, who are compelled to compete with prison labor in order that the prisons may be made self-supporting." (Enos' report to Federated Trades Council, page 7.)

If it is true that these Directors are immediately responsible to you for the proper performance of their duties, and if, upon examination, you find the matters herein stated to be susceptible of proof, we respectfully submit that the duty of your Excellency is exceedingly plain.

That these Directors be at once removed and their places filled by others who will do their duty and obey the law.

Very respectfully,

FRANK ROONEY,
PETER ROBERTS,
PATRICK McGREAL,
Committee.

The following is the Governor's reply:

SACRAMENTO, CAL., April 21, 1886.

FRANK ROONEY, PATRICK MCGREAL, AND PETER ROBERTS:

GENTLEMEN: Your favor (without date) concerning prison contract labor, and the action of the State Prison Directors in reference to the employment of prison labor, came duly to hand on the fourteenth instant. As charges have been filed in my office by the Attorney-General against the Directors, alleging that they have violated Section 6, of Article X, of the Constitution of the State, and as it will doubtless become my duty to investigate those charges in a judicial capacity within a few weeks, it would not be proper for me, at this time, to answer your letter fully, or to express an opinion as to the merits of the issues raised therein.

Very respectfully, your obedient servant,

GEORGE STONEMAN, Governor.

SAN FRANCISCO, May 17, 1886.

To the Council of the Federated Trades and Labor Organizations of the Pacific Coast:

GENTLEMEN: Your Committee on Convict Labor, in obedience to the instructions of this council, attended the investigation into the charges made by this council against the Board of State Prison Directors, which was conducted in the Governor's office, at Sacramento, on Saturday, the fifteenth instant.

The Governor was assisted by Judge W. C. Wallace, of Napa. Of the Prison Directors, Messrs. Hendricks and Devlin were present, the latter being the legal member of the Board. Attorney-General Marshall and W. T. Baggett represented the people generally, and this council particularly.

The proceedings were opened by the Attorney-General, who laid before the tribunal a series of resolutions by the Knights of Labor of Rocklin, condemnatory of the conduct of the prison management, as destructive of free labor, and detrimental to the interests of the State; and in stating the case for the people he disclaimed any intention of imputing any moral guilt to the Board, which he supposed had acted heedlessly rather than maliciously in the conduct of the prisons; but he insisted that it was clear that they had violated the law continuously from their appointment to the present time. He called the attention of the Court to the fact that the competitions of the prisons had resulted in the complete demoralization of many important industries, accompanied with intense suffering, loss of work, reduction in the wages of those who did work, and widespread dissatisfaction throughout the State. He did not demand that the Directors should be dismissed, or if dismissed, he would not object to their reappointment, for he had no doubt that they were personally competent and honorable gentlemen, as good as could be selected; but he demanded that they be instructed to obey the law, and to be governed by the manifest intent as well as by the letter of the Constitution, which evidently prohibits such unjust and inexcusable competition. The law was so plain that the Directors could not look one another in the face and say gravely that it has not been violated in every sale which had been made under their management. If, continued the speaker, it is claimed that obedience to the law would result in the idleness of the convicts, that is a matter with which the Directors, nor this tribunal, nor any one in this investigation has any concern. It is for the Legislature alone to consider; and the responsibility does and will rest with them. Referring to a statement by Mr. Devlin, that the Folsom prison did not compete with free labor, Mr. Marshall read from the last report of the Prison Directors:

"A large amount of revenue in the past has been obtained from the sale of granite for street work in San Francisco, but the general depression in business and the *fierce competition* of others engaged in the business of quarrying stone have caused a diminution of the demand for such material from the prison."

"I can imagine," said Mr. Marshall, "the ecstasy which filled the souls of the management when they recorded the shameful fact that that prison had reduced the free workmen to such desperate straits that he had for a time vanquished even convict labor backed by the unlimited credit of the State. How the champagne effervesced with increased sparkle as it rose bubbing to meet the lips of the men who were gleefully rejoicing at such a painful recital."

Evidence was then offered to show the effect of prison competition upon stone-cutters, but was objected to by Mr. Devlin, who maintained that the Directors had nothing to do with the effect of the prison labor upon private industry; that it was their duty to earn what they could by the labor of the prisoners, whether it injured free labor or not; that they sold the product of prison labor for the highest price they could obtain for it; that if this course were not pursued there would be a deficiency each year, which would have to be made good by legislative appropriation. He read from debates in the Constitutional Convention to show the mover of the article in controversy (Section 6, Article X) was influenced by the desire to have all, instead of part of the prisoners, at work, and that under the circumstances evidence as to the effect of prison competition upon free labor was not competent.

W. Y. Baggett replied that if the English language meant anything the section prohibited this competition; that the words employed could have been used with no other intent, and that the necessity for such a law was made manifest by the present proceedings, where the representatives of all the leading industries of the State were before this tribunal protesting against this very competition as a prostitution of the power of the State, and an incalculable injury to its industrial interests.

The Court then decided to allow the evidence to come in, subject to the objection of the counsel for the Directors, stating that they would exercise their discretion whether they should so consider it or not.

G. Griffith, sworn by the Governor, testified: I reside in Penryn. Am a practical stone-cutter. The prison advertises crosswalks at 35 cents and curbing at 45 cents per linear foot. The same stone cannot be furnished by free labor at less than $1 per linear foot. That is the lowest price. The market price has ranged from 90 cents to $1 25 per linear foot.

Cross-examined by Devlin: I sell for $1 when I can. I can't sell any now. I have sold crosswalk in Sacramento at 50 cents per foot, but it was narrow.

Q. Do you know the market price? A. There is no market price. The prison makes the price. My sales the past year ranged from $40,000 to $50,000. I am injured and can't employ so many men. It would be difficult for a quarryman to run out a competitor who got his tools and labor for nothing.

J. L. Grant sworn: I reside at Rocklin. Have been a practical stone-cutter for twenty-eight years. Have lived at Rocklin for twenty years. Previous to the past four years there have been from 300 to 400 men employed in the stone business. Now they are nearly all gone away, and of those who remain many had built homes and had families. Business has been so depressed that many of them can't raise money enough to pay their taxes. Since the prison started in the stone business, the men have frequently been compelled to work at the plow and in the fields at 75 cents per day, instead of at their trade for $3 50 to $4. There is no market price for stone. The prison never got more than from 50 to 60 per cent of the lowest price at which it could be furnished by free labor. As an instance, the prison furnished the cut stone for a church in Galt for $400. I made an estimate of what it was worth, and it couldn't be done less than $1,100 by free labor. I know by figuring on Sacramento work that the Folsom Prison figures 50 to 60 per cent of market prices. Wages of good quarrymen four years ago were $2 50 to $2 75 per day; stone-cutters, $3 to $4 per day. The number of men is diminished over one half, and those are seeking work at anything. I know that Mr. Griffith hasn't more than one fifth of the men that he used to have. Under the present system the free man has no chance at all. In my opinion, the State is running the quarries at a loss.

Cross-examined by Mr. Devlin: I am not owner of a quarry; am working for myself and for others; am working at present for John Taylor. It takes a good deal of money to open a quarry. When quarrymen work they get $2 per day. As long as the prison is in the market, free labor is crushed out altogether. I think that about $250,000 is the value of the stone annually used in the State.

Patrick McGreal, sworn: Am a stone-cutter. Reside in San Francisco. I have learned that there are 113 convicts cutting stone at Folsom. The material sold in San Francisco is sold at half the market price. On a job in San José, Owen & Blanchard put in a bid for $2,100. The prison did the work for $900.

This closed the testimony. The attorneys agreed to submit their respective arguments in writing in fifteen days, and the Court said that it would render a decision as soon thereafter as possible. It should have been stated that the Directors, in their answer, admitted all the facts as charged, but depended upon their construction of the law in justification. In private conversation, Mr. Griffith, of Penryn, stated that last summer, when the United States Government advertised for 20,000 cubic feet of granite at Mare Island Navy Yard, he put in a bid offering to furnish it at $1 30 per cubic foot, but M. J. Kelley secured the contract with prison stone at $1 29 per cubic foot, notwithstanding the earnest protests of many eminent citizens.

Your committee will also state that they were courteously received by the Governor, and were afforded every facility for the proper performance of their duty, and that the interests of the people were effectively and earnestly presented by the Attorney-General and Mr. Baggett.

Hoping also that our conduct in the premises will meet with your approval, we subscribe ourselves, respectfully your obedient servants,

FRANK ROONEY,
PATRICK McGREAL,
PETER ROBERTS,
Committee.

SAN FRANCISCO, June 3, 1886.

To his Excellency GEORGE STONEMAN, *Governor of California:*

DEAR SIR: In reviewing the work you have before you, in relation to the method of employing the convicts of the State, the question has, no doubt, frequently arisen in your mind: "If the prisoners are not employed in this way, to what use can they be put?" And we respectfully suggest that this misgiving is the outcome of the premise which seems to be the main consideration in the management of penal institutions—that they shall be profitable to the State, not in the sense of preventing or restraining crime, but in a financial sense; that their cost shall be offset by their earnings, so that nothing, or as small a sum as possible, shall be added to the burden of taxation.

The necessity for brevity in this communication will not permit us to demonstrate, as we might, that this policy is the reverse of economical, as it makes a State a bear in the market in such lines of business as it thus takes up, and by depressing prices renders many forms of useful enterprise uncertain, and so precarious and unremunerative, that large numbers of our citizens, who might find profitable employment therein, are compelled to direct their energies into other channels, thereby intensifying competition, which would not be so bitter if all avocations were free from prison influence.

In your investigations you have, no doubt, been impressed with the fact that most of the criminals in our prisons are undergoing punishment for offenses against property—burglary, larceny, and kindred crimes. Eight hundred and nine of the inmates of San Quentin, out of a total prison roll of 2,212, or 66 per cent, belong to this class of offenders, while at Folsom they include 415 out of a total of 561, or very nearly 75 per cent; so that while all the people of the State are personally interested in the repression and punishment of crime, the property owners and the wealthier portion of the community have a direct material interest which does not apply with equal force to the general public. Thus, if a system of prison management which did not take into account the question of profit should entail a slight increase to the burden of these taxpayers, it would seem that they have a corresponding benefit in the increased safety and security with which they may enjoy the favors of fortune.

The benefit is even more direct than that which results from judicious insurance. In the latter case the tax is paid ungrudgingly year by year, while no loss intervenes for the recognized security of recompense should disaster occur; while in the case of our prisons the benefit is manifest, continuous, and permanent, for during their term of punishment the prisoners, like caged birds of prey, are incapable of mischief, and in so far as they are concerned, all rights of property are absolutely secure.

But, sir, this tax, like that of insurance, at last comes inevitably upon the industrial element in the State, for the tax upon the property must be paid by the rent, and the rent must be paid by the profits of the business; and where do the profits come from if not from the consumer?

Thus the workingman is placed between the upper and nether millstones, for the competition of the prisons keeps the reward of his labor at the lowest notch, and he must pay an increased price for the necessaries of life out of his diminished earnings, for the legislative appropriation of $220,000 demonstrates, in spite of figures or statements, or reports, that the prisons are not self-sustaining and that a management that ruins free labor, and at the same time imposes taxation upon the ruined, is radically wrong.

The people have remedied the matter, or thought they did, when they voted overwhelmingly for Section 6 of Article X of the new Constitution, but they did not know that an ingenious Board of Prison Directors could nullify the organic law. Exercising in a manner the old right of petition, we come before you now, and ask that you intervene in our behalf and in behalf of the law, for you alone can do it.

During the investigation recently conducted before you it will be remembered that counsel for the Directors, insisting upon the application of the rigid rules of evidence which obtain in our Courts of law, seemed to press the witnesses with constant requests regarding the market price of articles manufactured in the prisons, totally ignoring or ignorant of the fact which the most incompetent of business men can see readily, that a competitor with unlimited facilities and capital, who pays no taxes and no wages, must infallibly fix the market price, and any one foolish enough to enter the market against him must go to the wall. The State, by its prison management, is in direct conflict with quarrymen, stone-cutters, tanners, harness-makers, furniture workers, and sash, door, and blind manufacturers, and in our former communication, to which we beg leave to refer you, we show by the testimony of employers and employés engaged in these industries that they are well nigh destroyed, and that large numbers of men skilled in these trades are compelled to seek employment as farm hands, in competition even with Chinese, to earn an honest livelihood. The National Government has armed vessels with soldiers and sailors a continuous cordon along our seacoasts, lakes, and rivers, and an army of officeholders to collect the customs duties and enforce the revenue laws. It is and has been its settled policy to impose a tax upon all manufactured articles made in foreign countries which can compete in the home market with like articles made at home, and all for the protection of home industries—that the American producer, with his immeasurable advantages of soil and climate, shall not come into competition with the cheap labor of foreign countries. Our own California wools and wines, and other products, are thus protected, and we, the consumers, cheerfully pay the enhanced price for these commodities for the general good, submit to this all prevading tax willingly for its recognized benefit to the community at large, and must we understand that California, in many respects the most favored of all the States of the Union, persists in the settled pursuit of that cruel policy which places the mechanic in competition with the convict, and measures the recompense of the free workmen by the cost of maintaining a prisoner?

Many of us have been allied with the political party to which you belong, and have faithfully followed its fortunes through years of defeat and disaster, because we had faith in it as the organization in which rested the safety of free institutions and all the hopes of the people, and we respectfully suggest that, as the representative of that party, you have an opportunity which falls to the lot of few men of placing it emphatically on record as the protector of the welfare of the people. Your decision, if favorable to us, will settle the matter so far as this State is concerned (for the Legislature which should interfere to subvert the policy inaugurated by you would be universally execrated), and the producing classes of the State, liberated from the paralyzing competition of convict labor, would always cherish in their hearts a grateful memory of the man whose decisive action made them truly free.

Very respectfully,

FRANK ROONEY,
P. McGREAL,
PETER ROBERTS,
Committee on Convict Labor of Federated Trades Council.

SAN FRANCISCO, June 11, 1886.

To the Federated Trades Council of the Pacific Coast:

GENTLEMEN: Your Committee on Convict Labor, in the regular course of its duty, begs leave to submit the following report, saying at the same time that a verbatim transcription of the business herein referred to would be only valuable as showing graphically how little is known upon the matter, and how entirely the relation of the law-abiding public to the State is eliminated from the consideration of the questions by the officers who have the prisons in their charge. We would further state that the Board of Prison Directors took no unfair advantage of the inexperience of your committee, and in the absence of the Attorney-General and of all counsel, allowed the committee a fair hearing, and showed throughout an obliging and courteous disposition.

Chairman Hendricks opened the proceedings by stating that the meeting was composed of the Prison Directors and a number of gentlemen from throughout the State who had been invited by the Governor to participate in the consideration of the questions relating to proper prison management. He stated that in response to letters of inquiry he had received answers from many prominent gentlemen in the East having relation to the subject, which he would read at the proper time, and stated that he had prepared a number of subjects to be taken up and considered in regular order, by first reading their title, the opinions of prominent penologists as received by him, to be followed by such discussion as should be desired by those present.

Mr. Sonntag suggested that the question of the employment of convict labor was the burning question in this community, and that that matter be taken up first. This course was finally decided upon, and we were at once "in the middle of things."

The discussion was participated in by a number of gentlemen, the greater part of whom seemed to be influenced by the desire to have the prisons as nearly as possible self-sustaining. Some of them, while not desiring to come into competition with free labor, thought that it was unavoidable if the prisoners were to be employed in productive labor.

Senator Routier, however, was flat-footed in condemnation of any employment which produced such competition, and denounced it as an unmixed outrage, declaring that the burden of their maintenance fell upon the producers, and that it was unfair and illogical to use the prisons for their oppression. He suggested that the prisoners could be employed in labor that would be of benefit to the State in building a wall around Folsom Prison, which would be a work of many years, and when finished would relieve the State of the expense of many guards and furnish an absolutely secure place of detention.

In the course of the debate, which continued until about 10 o'clock that evening, your committee denied the right of the State to teach the convict any trade whatever, contending that it was not necessary to his reformation, and was an infringement upon the rights of honest mechanics who were not criminal. Mr. Hendricks, in making a report of his visit to eastern prisons last winter, took occasion to impress upon his hearers, that productive labor is reformative, unproductive labor is vindictive and cruel, and that, in his opinion, the piece-price system of prison employment is the best, minimizing all objections, and giving the prisoner an opportunity of choosing his own trade. He was in favor of indeterminate sentences, and drew an interesting picture of the ideal prison governor. Mild, but firm; with a fatherly love for his misguided but unfortunate charges, towards whom " a kingly condescension graced his eye, the lion would have crouched to in his lair," whereat General McComb smiled quietly but said nothing.

Communications were read from Messrs. Lewis, of New York; Sanborn, of Massachusetts; Z. R. Brockway, General Brinkerhoff, General Bowers, M. J. Cassidy, Mrs. Dunlap, of Indianapolis; W. F. Brown, General Fitzhugh Lee, Governor Pattison, of Pennsylvania; the Governor of Tennessee, and others, and the singular unanimity with which they all differed as to the best method of using convict labor, and the decided differences of opinion expressed, would have satisfied any one but the amiable Director, that if there was such a thing as a science of prison management in existence, it was not to be sought for in the *effete* East. But your committee noticed one thing in all these communications, which pretended to emanate from those competent to teach, there was not one word as to the effect of prison competition with free labor. Plenty of crocodile sympathy for the thief and outlaw, with never a thought for the patient, industrious father and husband, who is free because he respects the law and does his duty to his neighbor and his God.

Your committee examined the brief of R. T. Devlin, counsel for the Board in the hearing before the Governor, without finding any new information. It manifests the industry of the attorney. Mr. Devlin urged, that under the law (legislative) the Directors were justified, and quotes California decisions, and Justice Thomas M. Cooley, to show that legislative Acts should, when possible, be given effect. Many extracts from eminent penologists are introduced, which laud the piece-price plan in place of the contract system, but all upon the ground of the better conservation of prison discipline thereby—not a word nor a thought of its effect upon free labor. He also shows that the expenses of San Quentin Prison are $200,000 per year, towards which the Legislature appropriates $130,000 per year, and the prison is expected to earn $70,000. The expenses of Folsom are about $130,000; the legislative appropriation is $90,000, and the prison is expected to earn $40,000 per year. He also cites the occupations of the various prisons throughout the country, to show that in all of them there is competition with free labor. But throughout the entire document, there is no recognition of the responsibility of government to avoid the impoverishment of free labor, and no attention whatever paid to the result of any form of convict competition. Indeed, the noticeable feature of prison literature, is the entire absence of this consideration; and the feeling which is inspired by protests from free labor seems to be fairly imaged in the following language, by so eminent and conservative a man as Professor Francis Wayland, at a meeting of the National Prison Association in 1883. We find it quoted in Mr. Devlin's brief:

"What has been the cause of this outcry against convict labor? Is there a gentleman in this room who believes for a moment that it has always come from intelligent and purely honest motives? Is there any sort of doubt that at the bottom of the whole thing the trouble has been simply this: Here was one territory in the State which the alleged labor reformer could not put his hand on. Is there any other reason? We demand to control every phase of labor in the State. Here is one form of labor we cannot control, and we will agitate until we can, or until labor shall cease there. Assuming that this is the case, is there any form of labor which has been managed here which will suit these gentlemen? I differ entirely with Mr. Brockway in his conclusions, but not as to his facts. A, B, C, or D, may say: 'If you will adopt this form of labor we will be satisfied.' As some gentlemen have said, 'the greater part of these have never earned an honest dollar in their lives, and the greater part of them never will.'"

Now, we will ask Mr. Wayland to name one prominent labor advocate in his own State of Connecticut, or any other Eastern State, or in any of the States of the Union, to whom his words will apply. If some indignant laborer in his audience had arisen on the moment and said, "Mr. Wayland, in the language of Horace Greeley, you lie," he could not have truthfully contradicted him. The reports of the officers of the State of California to the Legislature and to this council show that the testimony of employers and employed in all industries affected are identical, and that prison competition here, as elsewhere, is an unmixed evil, without even the compensating benefit of State profit to excuse its continuance.

Mr. Devlin, with all his industry and ingenuity, has made out as good a case for the Directors as is possible to be made, but he nowhere points out wherein the piece-price system is in any way different from the contract system, nor does he attempt anywhere to answer our charge to the Governor and by the press to the people of the State that it is an intentional evasion of the constitutional inhibition of the contract system, and there his brief is weak and, as a defense, valueless; but he could not be required to do the impossible, and he has not done it.

Governor Stoneman has decided the question, and, at last, so far as California is concerned, we have government for the people, not for the contractors who wax fat upon the product of convict labor and at State expense. After thirty days no more stone will be dressed at Folsom to compete with the labor of the free stone-cutter; no more leather or leather work, wood or woodwork, be turned out at San Quentin to impoverish the free workman at those industries. The first Governor in the history of the United States who, at his request, has formally instituted a workingman's State holiday, has also decided that the State by its prison management shall not compete in the market with the product of his industry.

On Wednesday morning Governor Stoneman informed your committee that he had decided to instruct the Prison Directors to give thirty days' notice to contractors of the termination of their contracts with the prisons, which would give an opportunity of working up the material on hand at San Quentin and relieve the State of any charge of unfairness towards those interested, and that at the expiration of that time the operation of the prisons in competition with free labor would cease. Your committee replied that such a decision of the matter was satisfactory to them, and they had no doubt would be as satisfactory to the council and the industrial population in the State.

We cannot close without congratulating this council upon this auspicious event in its history, and the people of the State, upon this practical and truly democratic recognition of the people as the source of all governmental power. In order to realize the full force of this decision, we should keep in mind the various and powerful influences at work to prevent it. The Governor has added one more emphatic and important manifestation of his quick sympathy and prompt recognition of popular necessity, which will still further endear him to the people, who have already noted his simple and unostentatious fidelity to them.

Your committee desire to return thanks to the various assemblies of K. of L., to the trades unions, labor societies and anti-Chinese organizations throughout the State, for their prompt and valuable expression of sympathy with its labors; we desire also to acknowledge courtesies at the hands of Governor Stoneman, Controller John P. Dunn, General McComb, Colonel J. J. Tobin, and others of the State officers, and to suggest that the work of the Federation in this important matter is now only fairly begun; it will be our duty to see to it that the law of the State shall agree with the Constitution of the State. To that end we should prepare such a law, and by proper effort see that no man is chosen to the Legislature at the coming election who is not pledged in writing to support it.

FRANK ROONEY,
PATRICK McGREAL,
PETER ROBERTS,
Committee.

CHAPTER VI.

COMPARISON OF WAGES PAID IN VARIOUS STATES AND CALIFORNIA.

The following tables show a comparison of wages paid in California and certain Eastern States, in the trades and occupations named:

TANNERIES—1885.

Classes of Employés.	Unit of Payment.	California.	New York.	Pennsylvania.	Ohio.
Foreman	Day	$3 85	$4 32	$3 00 to 3 85	--------
Bark grinders	Day	2 00	1 15 to 1 25	1 00 to 1 20	$1 50
Beam hands	Day	1 75 to 2 25	1 15 to 1 75	1 25 to 1 40	1 79
Shavers	Day	1 75 to 2 50	2 48	--------------	2 25
Rollers	Day	2 75	1 50	1 25 to 1 50	2 37
Finishers	Day	2 25	1 45	1 50	2 16
Curriers	Day	2 25 to 2 50	1 00	--------------	2 16⅔
Handler men	Day	1 75 to 2 00	1 25	1 15 to 1 30	2 00
Yard hands	Day	1 15 to 2 00	1 00 to 1 25	1 20 to 1 50	1 58
Engineers	Day	2 75	1 15 to 1 50	1 20 to 1 75	2 16⅔
Teamsters	Day	2 00	1 00 to 1 25	1 25	--------
Watchmen	Day	1 75 to 2 50	1 50	1 20 to 1 40	1 75
Laborers	Day	1 00 to 2 00	92 to 1 25	1 10 to 1 30	1 50

FURNITURE—1885.

Classes of Employés.	Unit of Payment.	California.	New York.	Pennsylvania.	Iowa.	Illinois.
Foreman	Month	$200 00	$78 00 to 144 00	$50 00 to 91 00	$60 00	$55 00 to 112 00
Machine hand	Day	3 50	2 25 to 3 00	1 75 to 3 00	1 58⅓	2 50
Turner	Day	2 50 to 4 00	2 25	1 50 to 2 50	2 04	2 00 to 2 50
Cabinet-maker	Day	2 50 to 3 00	2 50	1 67 to 3 00	1 58⅓	2 50 to 2 75
Chair-maker	Day	2 50 to 3 00	2 25 to 3 15	1 67 to 2 08⅓	2 04	2 25
Carver	Day	2 50 to 4 50	2 25 to 3 00	2 00 to 3 00	1 87½	2 00 to 2 75
Varnisher	Day	2 00 to 3 50	2 50	3 00	--------	2 50 to 2 75
Finisher	Day	2 00 to 3 50	2 25 to 3 00	1 91 to 2 50	1 87½	2 00 to 3 00
Upholsterer	Day	3 00 to 5 00	2 95	2 25	1 50	2 15⅔
Packer	Day	2 00	1 75 to 2 50	1 50 to 2 75	--------	1 75 to 2 25
Engineer	Day	3 84⅔	2 25 to 4 15	2 50	2 00	1 75 to 2 75
Laborer	Day	2 00	1 33⅓ to 2 66⅔	1 50	--------	1 00 to 2 00

WOOLEN INDUSTRY—1885.

CLASSES OF EMPLOYÉS.	Unit of Payment.	California.	New York.	Pennsylvania.	Illinois.	Massachusetts.
Superintendent	Month	$150 00	$91 00 to 500 00	$65 00 to 125 00	$130 00	$166 67
Wool sorter	Day	1 00	1 81	1 80	2 25 to 2 75	1 50 to 2 47½
Picker	Day	1 00	1 21	1 38	1 25	75 to 1 10
Carder (boss)	Day	4 00	1 83	1 90 to 2 00	2 75	1 20 to 4 00
Carder (boy)	Day	1 75	63	40 to 52	50 to 75	75
Spooler (girl)	Day	1 00	60	62½	60	45 to 65
Warper	Day	3 00	1 47	1 93	2 35	80 to 1 50
Spinner	Day	1 00	1 62	2 00	--------	1 19
Spinner (Chinese)	Day	1 00	50	60 to 1 32	90	70
Weaver	Day	1 25	1 53	90	1 25 to 1 75	1 25
Loom fixer	Day	4 00	2 03	2 02	1 75	1 50 to 1 90
Fuller (Chinese)	Day	1 20	1 15	1 15	1 50	1 25
Shearer	Day	--------	1 15	65	1 00	1 25
Scourer (Chinese)	Day	1 20	1 15	1 15	--------	--------
Scourer	Day	--------	--------	--------	1 50	1 25
Dyer	Day	1 73	4 00	1 50 to 4 00	2 75	1 12½
Dyer's helper	Day	1 00	1 15	1 33¼	1 25 to 1 50	1 10 to 1 25
Gigger (Chinese)	Day	1 00	1 15	1 15	1 50	95 to 1 15
Engineer	Day	3 07⅔	4 00	1 95	2 75	1 25
Machinist	Day	3 00	2 25	2 16	2 00	3 25
Laborer	Day	2 25	1 15	--------	1 00 to 1 50	1 13 to 2 95

BOOTS AND SHOES—1885.

CLASSES OF EMPLOYÉS.	Unit of Payment.	California.	Massachusetts.	Ohio.	Maryland.
Overseer	Month	$45 50	--------	$83 00	$100 00
Cutter	Day	3 00	$2 50	2 50	2 75
Fitter	Day	2 75	1 50	1 00	1 37½ to 1 75
Laster	Day	2 50	2 00	1 75	2 25
Treer	Day	3 00	4 00	2 75	1 75
Bottomer	Day	2 75	--------	1 50	--------
Finisher	Day	3 00	2 00	2 00	3 00
McKay sewer and cabler	Day	2 50	3 00	2 00	4 00
Packer	Day	2 50	2 50	--------	1 50

BOOTS AND SHOES—GREAT BRITAIN—1885.

DESCRIPTION OF OCCUPATION.	Employés.	Rate of Wages per Week.	Hours of Labor per Week.
Clickers	Men	$6 53	56
Clickers	Lads and boys	2 08	56
Sewing machine hands	Men	7 26	56
Sewing machine hands	Women	3 63	56
Sewing machine hands	Girls	1 21	56
Rough stuff cutters	Men	5 08	56
Rough stuff cutters	Lads and boys	1 94	56
Riveters	Men	6 05	56
Riveters	Lads and boys	1 69 to 3 39	56
Machine operators	Men	6 78	56
Machine operators	Lads and boys	1 69 to 3 63	56
Finishers	Men	7 26	56
Finishers	Lads and boys	2 90 to 3 63	56
Warehouse hands	Men	7 26	56
Warehouse hands	Lads and boys	1 21 to 2 90	56
Warehouse hands	Girls	1 57	56
Stock-room	Men	5 81	56
Counters	Youths	1 69	52½
Counters	Girls	2 19	52½

FLOUR AND GRIST MILLS—1885.

CLASSES OF EMPLOYÉS.	Unit of Payment.	California.	Iowa.	Indiana.	Illinois.	Michigan.	New York.
Miller	Day	$5 00	$2 50	$2 00	$3 84	$2 50	$6 00
Assistant miller	Day	5 00	1 73	2 00	3 46	1 50	2 30
Packer	Day	2 50	1 25	1 50	2 00	2 00	1 75
Millwright	Day	3 50	2 75	3 25	2 50	3 00	3 00
Stone-dresser	Day	3 50	1 75	2 00	3 07	---------	2 00
Engineer	Day	4 00	1 50	3 50	3 84	2 50	4 00
Apprentice	Day	1 00	69	------------	60	---------	1 00
Teamster	Day	2 50	1 66⅔	1 50	1 75	1 50	1 75
Watchman	Day	2 50	1 25	1 50	1 33⅓	---------	1 75
Laborer	Day	2 50	1 15	75 to 1 25	1 33⅓	1 50	1 25
Machine man	Day	2 50	2 25	------------	1 33⅓	---------	---------
Fireman	Day	2 50	---------	------------	2 00	---------	1 75

CALIFORNIA FLOUR MILLS—1871 TO 1880.

CLASSES OF EMPLOYÉS.	Unit of Payment.	1880.	1879.	1878.	1877.	1876.	1875.	1874.	1873.	1872.	1871.
Miller	Day	$5 00	$5 00	$5 00	$5 00	$5 00	$5 00	$5 00	$5 00	$5 00	$5 00
Assistant miller	Day	5 00	5 00	5 00	5 00	5 00	5 00	5 00	5 00	5 00	5 00
Packer	Day	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50
Millwright	Day	3 50	3 50	3 50	3 50	3 50	3 50	3 50	3 50	3 50	3 50
Stone-dresser	Day	3 50	3 50	3 50	3 50	3 50	3 50	3 50	3 50	3 50	3 50
Engineer	Day	4 00	4 00	4 00	4 00	4 00	4 00	4 00	4 00	4 00	4 00
Fireman	Day	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50
Apprentice	Day	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00
Teamster	Day	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50
Watcman	Day	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50
Laborer	Day	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50
Machine man	Day	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50

COLORADO FLOUR MILLS—1868 TO 1880.

CLASSES OF EMPLOYÉS.	Unit of Payment.	1880.	1879.	1878.	1877.	1876.	1875.	1874.
Miller	Day	$2 88	$2 88	$2 88	$2 88	$2 75	$2 75	$2 75
Assistant miller	Day	2 30	2 30	2 30	2 30	2 50	2 50	2 50
Packer	Day	1 66	1 66	1 66	1 66	1 66	1 66	1 66
Millwright	Day	3 20	3 20	4 20	4 00	4 00	4 00	4 00
Stone-dresser	Day	3 00	2 75	2 75	2 75	2 75	2 75	2 75
Engineer	Day	2 75	2 75	2 75	2 75	2 75	2 75	2 75
Fireman	Day	2 50	2 50	2 50	2 50	2 50	2 50	2 50
Apprentice	Day	1 33	1 33	1 33	1 33	1 33	1 33	1 33
Teamster	Day	1 66	1 66	1 66	1 66	2 00	2 00	2 00
Watchman	Day	2 00	2 00	2 00	2 00	2 00	2 00	2 00
Laborer	Day	2 00	2 00	2 00	2 00	2 00	2 00	2 00
Machine man	Day	-------	-------	-------	-------	-------	-------	-------

COLORADO FLOUR MILLS—Continued.

CLASSES OF EMPLOYÉS.	Unit of Payment.	1873.	1872.	1871.	1870.	1869.	1868.
Miller	Day	$3 00	$3 00	$3 00	$3 00	$3 00	$3 00
Assistant miller	Day	2 75	2 75	2 75	2 75	2 75	2 75
Packer	Day	1 66	1 66	1 66	1 66	1 66	1 66
Millwright	Day	4 25	4 25	4 25	4 00	4 00	4 00
Stone-dresser	Day	2 75	2 75	2 75	3 00	3 00	3 00
Engineer	Day	2 75	2 75	2 75	3 00	3 00	3 00
Fireman	Day	2 50	2 50	2 50	2 50	2 50	2 50
Apprentice	Day	1 50	1 50	1 50	1 33	1 33	1 33
Teamster	Day	2 00	2 00	2 00	1 66	1 66	1 66
Watchman	Day	2 00	2 00	2 00	2 00	2 00	2 00
Laborer	Day	2 00	2 00	2 00	2 00	2 00	2 00
Machine man	Day	-------	-------	-------	3 50	3 50	3 50

CIGARS—1885.

CLASSES OF EMPLOYÉS.	Unit of Employment.	California.	District of Columbia.	Indiana.	Maryland.	Missouri.
Sorter	Day	----------	----------	----------	*$0 50	$6 65
Stripper	Day	----------	----------	$0 50	*33⅓	1 10
Maker	Per 100	$0 55	†$1 42½	†2 00	----------	†2 25
Assorter	Per 1,000	80	----------	----------	----------	†6 65
Packer	Per 1,000	80	†83⅓	†3 00	*†58⅓	†2 25
Laborer	Day	----------	----------	----------	1 20	1 00

*Females. †Per day.

COAL MINING—1885.

CLASSES OF EMPLOYÉS.	Unit of Payment.	California.	Illinois.	Maryland.
Superintendent	Month	$150 00	$100 00	$225 00
Mining overseer, or pit boss	Day	3 00	----------	3 15⅓
Miner, on contract	Yard	75 to 1 00	*80	----------
Miner, on wages	Day	3 00	1 80	2 08⅔
Driver, inside	Day	1 75 to 2 25	1 35	2 48
Engineer	Day	3 00	2 30	----------
Blacksmith	Day	3 00	1 75	----------
Carpenter	Day	3 00	1 50	----------

*Ton.

GENERAL TRADES.

Table showing the Comparison of the Average Weekly Wages Paid in the General Trades in California, with those Paid in similar Trades in the Countries shown.

OCCUPATION.	California	New York	Germany	France	Belgium	Italy	England and Wales	Switzerland	Denmark
Building Trades.									
Bricklayers	$30 00	$20 00	$4 21	$5 74	$4 56	$4 20	$7 56	$5 21	$7 00
Hod carriers	18 00	11 00	2 92	3 13	3 22	1 70	4 94	2 99	4 30
Masons	30 00	18 00	4 07	5 33	5 22	3 60	7 68	5 27	5 36
Tenders	18 00	10 00	3 15	3 23	3 09	1 70	5 07	3 50	4 29
Plasterers	30 00	18 00	4 43	6 34	4 66	5 04	7 80	5 03	6 79
Tenders	18 00	10 00	2 91	3 23	3 02	1 70	5 27	3 40	3 86
Slaters	20 00	14 00	4 20	5 65	4 98	4 20	7 10	4 35	4 00
Roofers	------	12 00	4 28	5 65	4 97	4 20	7 35	2 99	8 00
Tenders	------	9 00	2 81	3 64	3 28	1 70	4 24	3 18	------
Plumbers	24 00	16 00	4 26	6 10	5 46	3 60	7 90	5 18	6 90
Assistants	7 00	10 00	2 72	3 61	2 93	1 70	4 69	3 36	2 80
Carpenters	24 00	14 00	4 11	6 20	4 07	4 00	7 66	4 74	7 00
Painters	------	------	4 82	------	------	------	------	------	------
Frescoers	------	------	------	------	------	------	------	------	------
Gasfitters	24 00	12 00	4 08	6 07	5 00	3 40	7 66	5 04	5 90
Other Trades.									
Bakers	18 00	7 00	3 90	5 48	4 28	4 00	6 17	3 88	4 80
Blacksmiths	21 00	13 00	4 00	5 81	5 38	3 60	7 37	5 20	4 82
Strikers	------	9 00	2 94	4 72	3 29	3 40	5 30	4 43	4 82
Bookbinders	24 00	14 00	4 20	5 17	5 35	3 80	6 77	4 68	4 82
Brick-makers	8 75	10 00	3 98	5 82	4 25	5 00	7 00	4 43	5 90
Brewers	12 50	5 00	------	4 43	4 67	8 00	6 85	3 78	3 75
Butchers	12 50	8 00	3 32	4 82	4 31	------	5 50	4 66	4 37
Brass-founders	18 00	10 00	4 38	6 54	6 02	4 60	7 47	4 92	4 82
Cabinet-makers	21 00	12 00	4 25	6 14	5 66	3 40	7 68	7 70	5 00
Confectioners	10 00	------	3 43	4 85	5 03	3 75	6 84	5 84	------
Cigar-makers	15 00	11 00 to 15 00	3 63	4 69	6 28	3 00	6 07	3 30	5 09
Coopers	21 00	12 00	3 97	5 58	5 17	2 60	7 50	4 80	4 82
Cutlers	24 00	10 00	3 90	5 16	5 28	3 80	7 00	8 00	4 60
Distillers	37 50	9 00	3 56	7 00	5 00	4 20	------	4 02	------
Drivers	------	------	3 21	4 80	3 95	------	5 37	3 84	3 22
Draymen and teamsters	15 00	10 00	2 96	5 57	3 77	1 50	5 37	3 84	3 22
Cab and carriage	15 00	9 00	3 21	4 82	3 92	2 50	5 15	3 84	4 80
Street railways	12 00	11 00	3 44	4 47	4 09	3 60	6 09	3 84	4 29
Dyers	35 00	13 00	3 45	4 83	6 15	3 60	6 18	4 91	4 29
Engravers	30 00	16 00	5 12	7 35	6 42	6 60	8 38	6 35	8 00
Furriers	7 00 to 15 00	13 00	4 20	7 00	6 35	4 60	8 52	4 63	5 36
Gardeners	18 00	9 00	3 78	5 11	3 91	4 00	5 80	3 83	4 00
Hatters	25 00 to 52 00	13 00	4 36	5 50	4 60	5 20	6 10	3 84	------
Horseshoers	------	13 00	3 61	5 89	5 62	5 20	6 35	4 65	4 82
Jewelers	27 00	11 00	5 21	6 24	6 84	3 80	8 76	6 35	5 36
Laborers, porters, etc.	4 00 to 12 00	9 00	3 11	3 93	3 77	3 60	4 70	3 61	4 29
Lithographers	15 00 to 32 00	12 00	5 59	7 07	5 86	------	7 07	5 51	5 50
Millwrights	24 00	14 00	4 18	6 74	5 00	------	6 97	6 30	6 00
Machinists	21 00	------	4 60	4 60	------	------	------	4 82	3 30 to 6 00
Nail-makers (hand)	21 00	------	3 12	4 84	------	3 20	5 90	2 64	4 82

General Trades—Continued.

Occupation.	California	New York	Germany	France	Belgium	Italy	England and Wales	Switzerland	Denmark
Nail-makers (machine)	-------	-------	-------	-------	-------	-------	-------	-------	-------
Potters	$15 00	$10 00	$3 60	$4 78	$4 86	$5 20	$5 20	$5 76	$4 02
Printers	12 50 to 30 00	13 00	-------	6 64	5 94	4 60	7 17	5 93	5 36
Pattern-makers	-------	-------	-------	-------	-------	-------	-------	-------	-------
Teachers	13 75 to 56 25	13 00	-------	7 00	7 74	5 00	7 50 to 12 00	-------	10 41
Teachers (females)	-------	-------	-------	-------	-------	-------	7 70	-------	-------
Saddle and harness makers	15 00 to 24 00	11 00	3 69	5 70	5 51	-------	6 63	5 20	5 00
Sail-makers	18 00 to 24 00	12 00	2 85	6 04	4 56	2 80	7 02	-------	4 82
Stevedores	30 00	12 00	5 70	6 72	4 36	2 00	8 44	-------	5 00
Tanners	15 00	-------	3 80 to 4 85	5 18	5 81	2 20	6 38	4 92	5 09
Tailors	20 00	7 00 to 12 00	4 30	5 02	5 58	4 00	7 40	6 50	6 36
Telegraph operators	3 00 to 22 50	12 00	5 11	6 92	6 35	5 20	7 65	-------	6 70
Tinsmiths	12 00 to 30 00	11 00	3 55	5 46	4 40	6 60	6 56	4 40	6 70
Upholsterers	21 00	-------	4 52	4 80 to 5 82	-------	-------	-------	-------	-------
Weavers (outside of mills)	7 50 to 20 00	-------	2 64	3 23	3 95	5 20	6 31	3 05	3 50

CHAPTER VII.

COST OF LIVING.

The following tables show the cost of living in the City and County of San Francisco, and the retail prices of the different commodities in said city, for twelve months, ending October, 1886, and rents, etc.

The cost of living in San Francisco will be found in the bills of fare of three of our leading dining saloons, who furnish 12,000 meals daily:

ROYAL DINING SALOON, SAN FRANCISCO.

BILL OF FARE.

Cooked to Order.

Family porterhouse (large)	75	Mutton cutlet, breaded	10
Family porterhouse	50	Lamb chops	10
Porterhouse steak	35	Pork chops	10
Tenderloin steak	35	Domestic sausage	10
Sirloin steak	25	Fried brains, plain or in batter	10
Rump steak	25	Fried tripe	10
Beefsteak and onions	10	Fried bacon, with or without apples	10
Beefsteak, plain	10	Liver and bacon	10
Beefsteak, Spanish	10	Bean omelette	10
Half spring chicken, broiled	50	Pigs' feet, soused or in batter	10
Veal cutlet, plain or breaded	10	Fish cakes	10
Mutton chops	10	Corned beef hash	10

Weiner schintzel, with tea or coffee, 25 cents.
Baked pork and beans, with Boston brown bread, 10 cents.

Oysters.

Oyster stew	25	Raw oysters	25
Oyster omelette	50	Oysters in crumbs	35
Oyster fritters	25	Oysters in batter	35
Scalloped oysters	25	Select Eastern oysters, any style	50

LUNCH AND DINNER.

Salads.

Chicken and crab a la mayonaise	10	Lobster a la Delmonico	10
Potato	Free		

Soup.

Mock turtle	10	Vegetable	10
Chicken	10	Mutton broth	10
Bouillon	10	Rice tomato	10
Oyster	10		

Fish.

Boiled rock cod and egg sauce	10	Baked halibut, tomato sauce	10
Salmon, baked, boiled, or fried	10	Salt codfish, boiled	10
Sea bass or flounder	10	Mackerel, boiled or broiled	10
Tenderloin of sole	10	Smelts, tom cods, or herring	10
Boneless smelt	10	Baked flounders	10

Cold Meats.

Roast chicken	35	Boiled ham	10
Roast turkey	35	Pressed corned beef	10
Soused pigs' feet	10	Roast mutton	10
Turkey, cranberry sauce	35	Chicken, giblet sauce	35

Roasts.

Turkey, cranberry sauce	35	Veal	10
Chicken, stuffed	35	Pork	10
Beef	10	Mutton	10
Chicken, oyster sauce	25	Mutton and turnips	10

Boiled.

Chicken, egg sauce	25	Corned beef and cabbage	10
Chicken, parsley sauce	25	Corned pork and cabbage	10
Mutton, caper sauce	10	Mutton and turnips	10
Mutton, mint sauce	10	Boiled New England dinner	15

Entrees.

Chicken fricassee a l'alamande	25	Corn beef hash a l'anglaise	10
Chicken potpie a la dauphine	25	Baked veal and oyster pie	10
Pig's head and cabbage	10	Calves head, sauce piquante	10
Breast of lamb breaded and succotash	10	Spring lamb curried and rice	10
Roll of beef and lima beans	10	Beef a la mode, with carrots	10
Baked lamb's brains, tomato sauce	10	Spring lamb fricassee, with pease	10
Frankfwiter sausage and red cabbage	10	Blanc mange fritters, citron sauce	10
Sirloin of beef larded and macaroni	10	Boiled beef, horseradish sauce	10

Stews.

Chicken	25	Veal	10
Brains	10	Mutton	10
Kidney	10	Beef	10
Tripe	10		

Vegetables.

Green pease	10	Cabbage	10
Tomatoes	10	Onions	10
Green corn	10	Spinach	10
String beans	10	Parsnips	10
Tomatoes, stewed	10	Lima beans	10
Red cabbage	10	Boiled onions	10
Succotash	10		

Fruit—All Kinds in Season.

Fresh grapes	10	Peaches and cream	10
Fresh figs	10	Assorted fruit	10
Strawberries and cream	10		

Puddings.

Apple dumpling	10	Peach roll	10
Bread	10	New York plum	10
Rice	10	Corn starch	10
Tapioca	10	Cup custard	10
Cabinet	10	Rice custard	10

Pies.

Apple	10	Cocoanut cream	10
Custard	10	Lemon cream	10
Peach	10	Strawberry	10
Plum	10	Squash	10
Cranberry	10		

Cakes.

Citron	10	Raisin	10
Sponge	10	Jelly	10
Cream	10	Jelly roll	10
Pound	10		

Desserts.

Peaches and cream	10	Baked apples	10
Cranberry sauce	10	Stewed prunes	10
Apple sauce	10	Banana fritters	10
New comb honey	10	Currant jelly	10
Hot mince pie	10	Bartlett pears	10
Stewed pears	10	Stewed figs in wine	10
Stewed plums	10	Ice cream	15

Wines and Liquors.

Geo. H. Mumm & Co.'s, qts.	$4 50	Port wine	$1 00
Geo. H. Mumm & Co.'s, pts.	2 25	Champagne, imported, extra, qts.	4 50
Table claret, per bottle	20	Champagne, imported, extra, pts.	2 25
Table claret, half bottle	10	Champagne, California, qts.	2 50

Wines and Liquors.

Extra California	50	Champagne, California, pts.	1 50
Extra California, half bottle	25	Ale, per bottle, pts.	25
St. Julien Medoc	75	Porter, per bottle, pts.	25
White wine, per bottle	25	Beer, per glass	10
White wine, half bottle	10	Bottled beer	10
Old sherry	1 50	English ale or porter	25
Small champagne cider	15	Eastern cider	10
California ale or porter	15		

BREAKFAST AND SUPPER.

Fish.

Tomcod or rock-cod	10	English sole	10
Salmon, fried or boiled	10	Fried smelts	10
Sea bass	10	Fried tomcod	10
Tenderloin of sole	10	Mackerel, boiled or broiled	10
Mess mackerel	10	Flounders or smelts	10

Eggs.

With tea or coffee.		With tea or coffee.	
Corn beef omelette with an egg	15	Three scrambled eggs	25
Three fried eggs	25	Egg omelette (three eggs)	25
Three poached eggs on toast	25	Rum omelette	25
Ham and two eggs	25	Fried salt pork and eggs	25
Three poached eggs	25	Two boiled eggs	20

Hot Rolls, Muffins, Etc.

Hot rolls	10	Coffee cake	10
German rolls	10	Jenny Lind cake	10
French rolls	10	Hot American waffles	10
Hot corn cake	10	German pancake, with coffee	25

Hot Cakes and Toast.

Buckwheat cakes	10	Dry toast	10
Flannel cakes	10	Milk toast	10
Corn batter cakes	10	Fried Indian pudding	10
Boston cream toast	15	Crushed Indian	10

Coffee, tea, chocolate, or milk	10	Oat meal mush, cracked wheat, or crushed Indian, with milk	10
Coffee, tea, chocolate, or milk, with rolls or toast	15	Oat meal mush, cracked wheat, or crushed Indian, with cream	15
Coffee, tea, chocolate, or milk, with pie or cake	15		

Entrees.

Yankee buckwheat cakes, with maple syrup	15	Apple fritters	10
Alameda snipe on toast, with tea or coffee	25	Apple sauce	10
One half spring chicken, with tea or coffee	50	Pigs' feet in crumbs or batter	10
Cosmopolitan breakfast	25	Boston pork and beans	10
English mutton chop	10	Boston cream toast	10
Home made sausage	10	Chicken liver brochette on toast	10
Fried corn meal mush, with currant jelly	10	Corned beef omelette, mushroom sauce	10
Pork tenderloin, with currant jelly	15	Tenderloin steaks	25
Pork spare rib, apple sauce	15	Quail on toast	25
Kidney, saute a la bordeau	15	Hulled corn and cream	10

Three 10 cent dishes to one person, 25 cents.
Two 10 cent dishes, with a cigar, 25 cents.

POPULAR DINING SALOON, SAN FRANCISCO.

DINNER BILL OF FARE.

Soups.

Scotch barley, Edinburgh style	10	Vegetable	10
Chicken	10	Mutton broth	10
Bouillon	10	Rice tomato	10
Oyster	10		

Fish.

Salmon, baked, boiled, or fried	10	Salt codfish, boiled	10
Sea bass, baked, boiled, or fried	10	Mackerel, boiled or broiled	10
Tenderloin of sole	10	Smelts, tomcods, or herring	10

Boiled.

Mutton, caper sauce	10
Mutton, mint sauce	10
Cold boiled ham	10
Corned beef and cabbage	10
Corned pork and cabbage	10
Mutton and turnips	10

Pot of tea or coffee, or glass of milk	10
Chocolate, cup	10

Chicken potpie	25
Veal potpie	10
Pigs' feet soused	10
Breast of lamb breaded	10
Mutton curry and rice	10
Veal	10

Roasts.

Beef	10
Veal	10
Pork	10
Turkey	50
Chicken, half	50
Chicken, quarter	35
Mutton	10

Entrees.

Roast chicken, currant jelly, half	50
Roast chicken, currant jelly, quarter	35
Chicken fricassee a la crême	25
Stewed chicken giblets, family style	10
Roast spring lamb and green peas	15
Irish stew, Dublin style	10
Baked young veal and peas	10
Beefsteak pie a la popular	10
Stewed spring lamb and sweet potato	10
Spare rib of spring lamb and lima beans	10
Brased sirloins of beef and celery roots	10
Baked macaroni and cheese a la Genoise	10
Roll of beef and stewed sweet corn	10
Baked breast spring lamb and string beans	10
Boiled rump of beef and horseradish	10
Boiled New England dinner	10
Brased shoulder of lamb and succotash	10
Tenderloin of sole, tartar sauce	10
Boiled fresh codfish, mustard sauce	10
Potato salad free.	

Relishes.

Banana fritters	10
Lobster salad	10
Apple fritters	10
Chicken salad	10

Stews.

Brains	10
Kidneys	10
Tripe	10
Veal	10
Mutton	10
Beef	10
Chicken fricassee	25
Stewed chicken	25

Vegetables.

Green corn	10
Green peas	10
String beans	10
Tomatoes	10
Cabbage	10
Onions	10
Spinach	10
Mushrooms	25

Puddings.

Apple sago	10
Apple dumpling	10
Bread	10
Rice	10
Tapioca	10
Plum	10
Bread custard	10
Greengage roll	10
Apple roll	10
Cup custard	10
Corn starch	10
Indian	10

Pies.

Custard	10
Apple	10
Mince	10
Squash	10
Lemon cream	10
Cocoanut cream	10
Hot mince	10
Plum	10
Peach	10
Cranberry	10
Blackberry	10
Strawberry cream	10
Huckleberry	10
Grape	10

Cakes.

Citron	10
Sponge	10
Cream	10
Pound	10
Jelly	10
Jelly roll	10

Dessert.

Stewed huckleberries	10
Stewed prunes	10
New honey	10
Baked apples	10
Stewed plums	10
Peaches and cream	10
Strawberries and cream	10
Raspberries	10
Baked pears	10

Wines.

Table claret, per bottle	25
Table claret, half bottle	10
Extra California	50
St. Julien Medoc	75
White wine, per bottle	25
White wine, half bottle	10
Old sherry	1 50
Port wine	1 00
Champagne, imported, extra, quarts	4 50
Champagne, imported, extra, pints	2 25
Champagne, domestic, quarts	3 00
Champagne, domestic, pints	1 50
Ale, per bottle, pints	25
Porter, per bottle, pints	25
Beer, per glass	10
Bottled beer	10
Schlitz Milwaukee beer	25 and 50
Cantenac Medoc	50
Haut Sauterne	50 and 1 00
Chateau Lafitte	50 and 1 00
Chateau La Rose	50 and 1 00
Sarsaparilla	10
Soda water	10
Russ Cuvee	10
Congress water	10
California ale or porter	15
Ginger ale	10
Best Zinfandel	15 and 30
Vermouth	10
Anisette	10
Absinthe	10
Cider	10

BREAKFAST AND SUPPER.

Cooked to Order.

Quail on toast	25
Family porterhouse	50
Half spring chicken	50
Porterhouse steak	35
Rump steak	25
Sirloin steak	25
Tenderloin steak	25
Broiled quail	25
Weiner schnitzel and coffee	25
Veal cutlet, plain or breaded	10
Beefsteak, plain	10
Porterhouse of veal	25
Beefsteak, Spanish	10
Beefsteak and onions	10
Mutton chops	10
Pork chops	10
Bacon, fried or broiled	10
Fried apples and bacon	10
Bean omelette	10
Mutton cutlets, breaded	10
Domestic sausage	10
Liver and bacon	10
Fried brains, plain	10
Fried brains, in batter	10
Lamb chops	10
Pigs' feet, in batter	10
Corned beef hash	10
Fried smelts	10
Fried tomcod	10
Salmon, fried or broiled	10
Fish balls	10
Mackerel	10
Herring, fried or broiled	10
Tenderloin of sole	10

Baked pork and beans, with Boston brown bread, 15 cents.
Maple syrup, 5 cents.

Eggs and Oysters.

Two eggs, with tea or coffee	20
Three boiled eggs, with tea or coffee	25
Three fried eggs, with tea or coffee	25
Ham and 2 eggs, with tea or coffee	25
Ham and 3 eggs, with tea or coffee	30
Poached eggs on toast, with tea or coffee	25
Three scrambled eggs, with tea or coffee	25
Three omelette eggs, with tea or coffee	25
Three rum omelette eggs, with tea or coffee	35
Oysters in batter	25
Oyster fritters	25
Stewed oysters	25
Raw oysters	25
Oysters fried in crumbs	35
Select Eastern oysters	35

Hot Cakes, Muffins, Rolls, Etc.

Buckwheat cakes	10
Flannel cakes	10
Milk, dry, or cream toast	10
Corn batter cakes	10
German pancake, with coffee	25
Doughnuts	10
Hot corn bread (morning)	10
German rolls	10
French rolls	10
Jenny Lind cake	10
Coffee cake	10
Hickory bread	10

Cake or pie, with coffee, tea, or chocolate, 15 cents.
Oatmeal mush or cracked wheat, with milk, 10 cents.

Entrees.

Fried spring chicken, with cream sauce	35
Baked pork and beans and Boston brown bread	10
Half spring chicken broiled on toast	50
Fried or broiled rock-cod	10
Boneless smelt	10
Flounders in any style	10
Corned beef hash and one egg	15
Fried calves' liver, with bacon	10
Beef kidney broiled on toast	10
Bunker's club house sausage	10
Stewed tripe	10
American waffles	15
Scrambled brains, with an egg	15
Hamburg steak, with coffee	25
Stewed kidney	10
Fried or broiled tripe	10
Brains fried plain or in batter	10
German pancakes and coffee	25
Hulled corn in cream	10
Crushed Indian corn and cream	10
Ice cream	15

One 15-cent and two 10-cent dishes to one person for 30 cents.

PALACE BAKERY AND RESTAURANT.

DINNER BILL OF FARE.

Soups.

Clam chowder	5
Chicken	5
Bouillon	5
Oyster	5
Vegetable	5
Mutton broth	5
Rice tomato	5

Fish.

Salmon, baked, boiled, or fried	10
Sea bass, baked, boiled, or fried	10
Tenderloin of sole	10
Salt codfish, boiled	10
Mackerel, boiled or broiled	10
Smelts, tomcod, or herring	10

Boiled.

Mutton, caper sauce	10
Mutton, mint sauce	10
Cold boiled ham	10
Corned beef and cabbage	10
Corned pork and cabbage	10
Mutton and turnips	10

Pot of tea or coffee or glass of milk, with cakes or rolls	10
Cup of chocolate, with cake, pie, or rolls	10

Roast.

Beef	10
Veal	10
Pork	10
Turkey	25
Chicken	25
Mutton	10

Entrees.

Boiled or baked salmon	10
Boiled bass	10
Codfish cakes	10
Codfish, family	10
Boiled salt codfish, a la creme	10
Tenderloin of sole, tartar sauce	10
Fried rockfish	10
Fried herring	10
Baked clam pie	10
Ten eastern oysters, any style	25
Roast chicken, cranberry sauce	25
Roast duck, apple sauce	15
Rib of beef, Spanish style	10
Breast of lamb and sprouts	10
Stewed hare a l'Anglaise	10
Mutton pot pie	10
Beef a la mode	10
Brased beef and tomatoes	10
Stewed spring lamb and turnips	10
Tripe, Spanish	10
Dry hash	10
Pork and beans	10

Green canned corn, 10 cents.
String beans, 10 cents.
Stewed tomatoes, 10 cents.

Green and Stewed Fruits, Pastry, Etc.

Plum and apple roll	5
Corn starch	5
Stewed or baked pears	5
Peaches, raspberries, or strawberries, with cream	10
Strawberry shortcake	10
Grapes	5
Baked apples	5
Bananas	10
Banana fritters	10
Stewed prunes	5
Cream pie	5
Peaches and cream	10

Chicken potpie	25
Chicken fricassee	25
Stewed chicken	25
Breast of lamb breaded	10
Mutton curry and rice	10
Veal potpie	10

Stewed.

Brains	10
Kidneys	10
Tripe	10
Mutton	10
Beef	10
Veal	10

Vegetables.

Green corn	10
Green peas	10
String beans	10
Stewed tomatoes	10
Cabbage	5
Onions	10
Spinach	10
Asparagus	10

Pudding.

Bread	5
Rice	5
Tapioca	5
Plum	5
Apple roll	5
Cup custard	10
Corn starch	5
Indian	5

Pies.

Cream	5	Peach	5
Apple	5	Plum	5
Mince	5	Cranberry	5
Custard	5	Blackberry	5
Squash	5		

Cakes.

Citron	5	Pound	5
Sponge	5	Jelly	5
Cream	5	Jelly roll	5

Coffee cake or doughnuts, with tea or coffee, 10 cents.

Dessert.

Stewed prunes	5	Peaches and cream	10
Baked apples or pears	5	Strawberries and cream	10
New honey	5	Raspberries	10

Wines.

Table claret, per bottle	$0 20	Champagne, Cabinet, pts.	$0 75
Table claret, half bottle	10	Champagne, Hoxie, pts.	50
White wine, per bottle	20	Burgundy, per bottle	50
White wine, half bottle	10	Gutedel, per bottle	50
Zinfandel—pts., 15 cts.; qts.	30	Ale, per bottle (imported)	25
Zinfandel—pts., 25 cts.; qts.	50	Guinness' extra stout (Dublin), pts.	25
Riesling, qts.	50	Philadelphia beer, on draught	5
French claret	50	Boca beer, per bottle, pts.	10
Old sherry	1 00	Fredericksburg lager beer, per bottle	10
Port wine	1 00	National lager beer, per bottle	10
Chateau La Rose	1 00	Stock ale and porter, pts.	10

Philadelphia beer, per bottle, 10 cents. Beer, claret, or white wine, per glass, 5 cents.

BREAKFAST AND SUPPER.

Cooked to Order.

Family porterhouse	50	Half spring chicken and coffee	50
Porterhouse steak	35	Broiled quail	25
Sirloin steak and coffee	25	Lamb chops	10
Tenderloin steak and coffee	30	Domestic sausages	10
Rib steak	15	Fried brains, plain	10
Veal cutlets, plain or breaded	10	Fried brains in batter	10
Beefsteak, plain or Spanish	10	Corned beef hash	10
Mutton chops	10	Fried smelts	10
Pork chops	10	Fried tomcods	10
Bacon, fried or broiled	10	Salmon fried or broiled	10
Weiner schnitzel and coffee	15	Fish balls	10
Hamburger beefsteak and coffee	15	Mackerel	10
Liver and bacon	10	Herring fried or broiled	10
Mutton cutlets	10	Tenderloin of sole	10

Baked pork and beans with Boston brown bread, 10 cents.

Eggs and Oysters.

Boiled eggs, 2 with coffee or tea	15	Rum omelette, 3 eggs with coffee	30
Fried eggs, 2 with coffee or tea	15	Oysters in batter	25
Ham and 2 eggs with coffee or tea	25	Oyster fritters	25
Ham and 3 eggs with coffee or tea	30	Stewed oysters	25
Poached eggs on toast, 3 with coffee or tea	20	Raw oysters on half shell	50
Scrambled eggs, 3 with coffee or tea	20	Oysters fried in crumbs	25
Omelette, 3 eggs	20	Large Eastern oysters	50

Hot Cakes, Rolls, Etc.

German pancake with coffee	20	Buckwheat cakes	10
Corn batter cake	10	Flannel cakes	10
Doughnuts	5	Milk or cream toast	10

Boston cream toast, with tea or coffee, 15 cents.
Oat meal mush, or cracked wheat with milk, 10 cents.
All kinds of cakes or pies with tea, coffee, or chocolate, 10 cents.

Dishes Served to One Person Charged as Follows:

Single 5-cent dish	10	Two 10-cent dishes	20
Two 5-cent dishes	15	One 25-cent dish and two 10-cent dishes	40
Three 5-cent dishes	20	Two 25-cent dishes and one 10-cent dish	50
Three 10-cent dishes, to one person	25	One 15, one 10, and one 5-cent dish	25
Single 10-cent dish of meat	15		

Half bottle of claret or white wine, 10 cents.

RENTS IN CALIFORNIA.

	Per Month.
Tenements	$10 00 to $25 00
Flats	8 00 to 20 00
Rooms, single	4 00 to 8 00
Rooms, double	5 00 to 10 00
Rooms, suites	10 00 to 20 00
Rooms for housekeeping	10 00 to 20 00

RULING RETAIL PRICE LIST FOR TWELVE MONTHS ENDING OCTOBER 31, 1890, IN THE CITY AND COUNTY OF SAN FRANCISCO

Articles	November, 1889	December, 1889	January, 1890	February, 1890	March, 1890	April, 1890	May, 1890	June, 1890	July, 1890	August, 1890	September, 1890	October, 1890
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Dairy Produce												
Fancy roll butter, per roll	70 to 80	45 to 50	40 to [illegible]	25 to 30	40 to 45	50	55	55	[illegible]	60	60 to 70	47 to 50
Choice roll butter, per roll	60 to 65	40 to 45	35 to [illegible]	20 to 32	25 to 27½	44 to 50	45 to 50	45 to 50	45 to [illegible]	50 to 60	50 to 55	42 to 45
Pickled roll butter, per roll	50 to 60	25 to 30	25 to [illegible]	25 to 27½	27½ to 32½	40 to 45	40 to 45	40 to 45	40 to [illegible]	50		22½ to 25
Eastern butter, per pound	20 to 25	25 to 30	27½ to [illegible]	25	25 to 40						25 to 30	
California eggs, per dozen	35 to 40	45 to 50	45 to [illegible]	35 to 40	40 to 45	30	35	25	30	30	35 to 40	40 to 45
Eastern eggs, per dozen	20 to 30	30 to 35	30 to 35	25	35 to 40	15 to 27½		30	30	30	20 to 25	25 to 35
[illegible] eggs, per dozen	25 to 30	20 to 25						30	25			
Lard, per pound	12½ to 15	12 to 17½	12 to 15	12 to 15	12 to 15	12 to 15	12 to 15	12 to 15	12 to [illegible]	12 to 15	12½ to 15	12 to 15
Swiss cheese, per pound	20 to 25	25 to 35	30 to [illegible]	20 to 25	20 to 25	20	20	30	20	40	30 to 35	30
Limburger cheese, apiece	35 to 50	35 to 50		40	35 to 50	20 to 40	20 to 40	20 to 40	[illegible]	20 to 40	25 to 30	20 to 40
Eastern cheese, per pound	22½ to 25	20 to 25	20 to 25	25	25	20	20	20	20	20	22½ to 25	30
California cheese, per pound	15 to 20	15 to 20	15 to 20	10 to 15	10 to 15	20	20	15	20	15	10 to 15	12 to 15
[illegible] cheese, per pound	25	20 to 25		20 to 25	15 to 20	15	12 to 15	15	15	15	25	
Comb honey, each	20 to 30	15 to 20	15 to 20	12	12	15	15	15	15	15	15	12 to 15
Extracted honey, per pound	8 to 10	12 to 17½	8 to 12½	8	8	8	8	8	8	8	8 to 10	8
Duck eggs, per dozen	30 to 35	35 to 40	35 to 40	30	25 to 40	20	20	15 to 30	22 to 25	25		
Fruits and Nuts												
Almonds, per pound	20 to 25	20 to 25	20 to 25	20 to 25	20 to 25	20 to 25	20 to 25	20 to 25	20 to 25	20 to 25	20 to 25	20 to 25
Black figs, per pound	5 to 10	10 to 14		10 to 12	20 to 25	25 to 30	25 to 30	25 to 30	25 to 40	25 to 30	20 to 25	
California dried figs, per pound	10 to 15	10 to 12	10 to 12	10 to 12	10 to 25	10 to 15	10 to 15	10 to 15	10 to 15	10 to 15	10 to 15	10 to 15
French prunes, per pound	8 to 15	8 to 15									8 to 15	
Raisins, per pound	10 to 12	10 to 20	10 to 20	15 to 25	10 to 20	10 to 20	10 to 20	10 to 12½	10 to 12½	10 to 12½	10 to 12	10 to 12½
Walnuts, per pound	10 to 12½	10 to 12½	12½ to 20	12½ to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20
Bananas, per dozen	20 to 50	30 to 50	25 to 40	25 to 40	10 to 50	40 to 40	10 to 40	10 to 50	10 to 40	10 to 50	25 to 50	10 to 40
Strawberries, per drawer	20 to 30	20 to 30	20 to [illegible]		25 to 40	1 00 to 1 00	1 00 to 1 40	75 to 1 00	15 to 25	15 to 25	25 to 40	10 to 15
Grapes, per pound	3 to 5	6 to 10	10 to 15	10 to 20	5 to 10				15 to 20	3 to 5	5 to 8	5 to 8
Apples, per box	40 to 1 00	50 to 1 00	50 to 1 00	50 to 1 00	75 to 1 25	75 to 1 25	75 to 1 40	50 to 1 00	40 to 75	50 to 75	1 00 to 1 75	4 to 8
Crabapples, per pound	3 to 5	3 to 7										
Watermelons, each	15 to 35	15 to 20			20 to 50					10 to 25	15 to 35	10 to 35
Cantaloupes, each	8 to 15	10 to 15	10 to 25		10 to 25				10 to 40	10 to 25	15 to 25	10 to 25
Pears, per pound	6 to 8	5 to 10	4 to 5	4 to 5	5 to 10	6 to 12	6 to 12	4 to 10	4 to 10	4 to 10	8 to 10	4 to 10
Peaches, per pound	5 to 8	6 to 8	9 to 12	4 to 10	6 to 8			6 to 10	6 to 10	6 to 10	8 to 10	6 to 10
Plums, per pound	3 to 8	5 to 7	5 to 7	3 to 5	5 to 8				6 to 10	6 to 10	5 to 8	5 to 10
Blackberries, per box	25 to 40	25 to 50	3 to 5		25 to 50			50 to 75	40 to 75	10 to 50	25 to 30	40 to 50
Nectarines, per pound	8 to 10	10 to 12							8 to 10	8 to 10		
Cocoanuts, each	10 to 15	10 to 15	10 to 15	10 to 12	10 to 12	8 to 10	8 to 10	8 to 10	8 to 10	8 to 10	10 to 15	8 to 10
Pineapples, each	25 to 75	25 to 50	50 to 1 00	50 to 1 00	75 to 1 00	75 to 1 00	75 to 1 00	60 to 1 00	60 to 1 00	60 to 1 00	25 to 75	60 to 1 00
California oranges, per dozen	25 to 75	50 to 1 00	25 to 35	30 to 60	50 to 1 00	25 to 1 00	25 to 1 00	25 to 1 00	25 to 1 00	25 to 1 00	25 to 40	25 to 1 00
Sicily lemons, per dozen	30 to 50	25 to 35	25 to 35	30 to 50	40	10 to 30	10 to 40	40 to 50	10 to 40	10 to 40	35 to 40	
California lemons, per dozen	35 to 50	25 to 50	35 to 40	15 to 25	25 to 40	20 to 25	20 to 25	15 to 20	15 to 20	15 to 25	50	10 to 40
Mexican limes, per 100	1 25 to 2 50	1 50 to 3 00									1 50 to 2 50	1 00 to 2 40
Raspberries, per basket						40 to 60	40 to 60	10 to 15	10 to 15	10 to 15		15 to 20
Cherries, per pound						1 50	20 to 25	15 to 20	15 to 20	20 to 25		
Gooseberries, per pound							15 to 20	6 to 10	10 to 15			
Apricots, per pound								4 to 10	5 to 10	5 to 10		
Cranberries, per gallon								75 to 1 00	75 to 1 00	75 to 1 00	80 to 1 00	75 to 1 00
Quinces, per box											1 40	
Flour	3 00 to 4 00	3 00 to 4 00				3 00 to 4 25	3 00 to 4 12				3 00 to 4 25	3 00 to 4 00
Poultry and Game												
Geese, each	1 00 to 1 50	1 50 to 2 00	1 75 to 2 00	1 75 to 2 00	1 75 to 2 25	2 50 to 3 00	2 50 to 3 00	1 50 to 2 00	1 40 to 2 00	1 40 to 2 00	1 40 to 2 00	1 40 to 2 00
Turkeys, per pound	18 to 20	22½ to 25	15 to 18	18 to 20	23 to 25	20 to 23	22 to 23	22 to 23	22 to 25	22 to 25	20 to 25	23 to 25
Ducks, per pair	1 00 to 1 50	1 00 to 1 50	75 to 1 00	75 to 1 00	75 to 1 00	1 00 to 1 25	2 00 to 2 50	1 50 to 2 00	1 40 to 2 00	1 40 to 2 00	1 40 to 2 00	1 40 to 2 00
Roosters, each	60 to 85	65 to 95	75 to 1 00	75 to 1 00	75 to 1 00	1 00 to 1 25	1 00 to 1 25	75 to 1 00	75 to 1 00	75 to 1 00	60 to 85	75 to 1 00
Hens, each	60 to 75	75 to 1 12	75 to 1 00	75 to 1 00	75 to 1 25	75 to 1 00	75 to 1 00	65 to 1 00	65 to 1 00	60 to 1 00	50 to 70	60 to 1 00
Doves, per dozen	1 00 to 1 25	1 00 to 1 25	1 00 to 1 25	1 00 to 1 25	1 00 to 1 25	1 00 to 1 12	75 to 80	1 50	1 50	1 40		1 50
Snipe, each	25 to 30	25 to 30	40 to 75	60 to 75	50	60 to 62	10 to 65	60 to 65				
Squirrels, per pair	15 to 20	10 to 12½	1 00 to 1 25	1 00 to 1 25	25 to 30	16 to 20	16 to 20	16 to 30	16 to 20	16 to 20	15 to 20	16 to 20
Hare, each	20 to 25	50 to 65	50 to 75	75 to 1 00	50	50	50	20	40	40	20 to 30	25
Small birds, per dozen	40 to 50	40 to 60	75 to 1 00	75 to 1 00	75	1 00	75 to 80				15 to 40	
Broilers, each	40 to 50	50 to 65	50 to 70	50 to 75	35 to 60	40 to 50	62 to 75	50 to 62	50 to 62	50 to 62	15 to 40	50 to 62
Rabbits, per pair	25 to 30	20 to 30	25 to 40	25 to 40	25 to 40	25 to 30	25 to 40	25 to 40	25 to 40	25 to 40	25 to 30	25 to 40
Venison, per pound	10 to 25	15 to 18			15 to 18				12½ to 15	15 to 20	8 to 15	15 to 20
Pigeons, per pair					75	75	75	75	75	75		75
Vegetables												
Artichokes, per dozen	20 to 30	30 to 35	25 to 35	25 to 35	30 to 40	25 to 30	25 to 35	20 to 25	20 to 25	20 to 25	25	25 to 40
Beets, per dozen	12½ to 15	15 to 20	15 to 25	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	12½ to 15	15 to 20
Lettuce, per dozen	12½ to 15	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	12½ to 15	15 to 20
Turnips, per dozen	12½ to 15	15 to 20	10 to 15	10 to 15	10 to 15	10 to 15	10 to 15	10 to 15	10 to 15	10 to 15	12½ to 15	10 to 15
Radishes, per dozen bunches	12½ to 15	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	12½ to 15	15 to 20
Carrots, per dozen	12½ to 15	15 to 20	15 to 20								12½ to 15	
Cabbages, each	5 to 10	5 to 8	5 to 8	5 to 8	5 to 8	5 to 8	5 to 8	5 to 8	5 to 8	5 to 8	5 to 10	5 to 8
Cauliflowers, each	5 to 10	5 to 10	5 to 10	5 to 10	5 to 8	5 to 8	5 to 8	5 to 8	5 to 8	5 to 8	10	5 to 8
Celery, per bunch	10 to 12½	5 to 10	5 to 10	5 to 10	5 to 10	5 to 10	5 to 10	5 to 10	5 to 10	5 to 10	4½ to 10	5 to 10
Tomatoes, per pound	3 to 5	3 to 4	5 to 7	5 to 7	2 to 4	20 to 25	15 to 20	6 to 8	6 to 8	6 to 8	3 to 5	3 to 4
Cress, per dozen bunches	15	12½	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20
Butter beans, per pound	5	5			5 to 6	5 to 6	5 to 6	5 to 6	5 to 6	5 to 6		5 to 6
Lima beans, dry, per pound	6	6			5 to 6	5 to 6	5 to 6	5 to 6	4 to 6	5 to 6	5 to 6	5 to 6
String beans, per pound	6 to 7	6 to 7	5 to 7	5 to 7	6 to 8	20 to 25	20 to 25	5 to 8	5 to 8	5 to 8		6 to 8
Okra, per pound	12 to 25	10 to 20	[illegible]	35 to 50	35 to 40	35 to 40	35 to 40	35 to 40	35 to 40	35 to 40	10	20 to 25
Lima beans, green, per pound	6 to 8				6 to 8				12 to 15	12 to 15	6 to 8	6 to 8
Egg plant, per pound	5 to 8	8 to 10			6 to 8	10 to 20	10 to 40	15 to 20	10 to 15	10 to 15	8	6 to 8
Lentils, per pound	8 to 12½	8 to 15			8 to 15	8 to 10	8 to 10	8 to 10	8 to 10	8 to 10	5 to 10	8 to 10
Garlic, per pound	10	3 to 5	10 to 12	10 to 12	6 to 8	25 to 40	25 to 40	8 to 10	8 to 10	8 to 10	6 to 8	8 to 10
Onions, per pound	2 to 3	3 to 4	2 to 4	2 to 4	3 to 4	8 to 10	6 to 8	2 to 3	2 to 3	2 to 3	3 to 5	2 to 3
Parsnips, per dozen	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20
Potatoes, old, per cental	1 00 to 1 05	1 00 to 1 25	2 00 to 3 00	2 00 to 3 00	1 00 to 2 00	2 00 to 3 00	2 00 to 3 00	1 40 to 2 00	1 40 to 2 00	2 00 to 3 00	1 00 to 1 50	1 00 to 1 50
Potatoes, new, per cental	1 00 to 1 40					3 00 to 4 00	3 00 to 4 00	2 00 to 3 00	2 00 to 3 00			
Potatoes, sweet, per pound	3 to 5	2 to 3			2 to 3						[illegible]	[illegible]
Sage, per pound	40	40	30 to 35	30 to 35	30 to 35	30 to 35	30 to 35	30 to 35	20 to 35	20 to 35	50	30 to 35
Spinach, per pound	5 to 8		5 to 8	5 to 8							6 to 8	
Squash, per pound	2	2									2	
Thyme, per dozen bunches	25	25 to 37	35	35	25	25 to 30	25 to 40	25 to 40	25 to 40	25 to 40	25	25 to 50
Peppers, green, per pound	10 to 15	5 to 8	10 to 15	10 to 15	5 to 8	25 to 30	20 to 25	20 to 25	8 to 10	8 to 10	15	8 to 10
Peppers, Chili, per pound	25	25	25 to 30	25 to 30	20 to 40	20 to 40	20 to 40	20 to 40	20 to 40	20 to 40	25	20 to 40
Green peas, per pound	3 to 5	5 to 8				5 to 6	5 to 6	4 to 5	4 to 5	4 to 5	3 to 5	5 to 6
Cucumbers, per dozen	20 to 25	10 to 15	15 to 25	15 to 25	10 to 15	2 00 to 2 50	1 40 to 2 00	20 to 60	15 to 25	15 to 25	15 to 25	15 to 20
Summer squash, per pound	4 to 5	3 to 5			3 to 6	15 to 20	10 to 12	[illegible]	4 to 5	4 to 5	6	4 to 5
[illegible], per dozen	15 to 35	15 to 25			15 to 20	15 to 20		20 to 40	20 to 40	20 to 50	15	25 to 30
Asparagus, per pound						5 to 10	5 to 10	5 to 10	5 to 10	5 to 10	5 to 10	25 to 60
Rhubarb, per pound			5 to 6		5 to 6	5 to 10	8 to 10	5 to 6	5 to 6	5 to 6	6	
[illegible], per pound			5 to 7	5 to 7		5 to 10	8 to 10					5 to 6
Mushrooms, per pound							40 to 75	40 to 75	20 to 75	40 to 75	40	20 to 75
Fish												
Flounders, per pound	8 to 10	5 to 6	4 to 6	4 to 6	4 to 6	4 to 5	4 to 5	8 to 10	8 to 10	8 to 10	12½ to 15	5 to 8
Perch, per pound	8 to 10	4 to 5	4 to 5	5 to 6	3 to 4	4 to 6	4 to 5	4 to 5	4 to 5	4 to 5	8 to 10	5 to 8
Salmon, smoked, per pound	15	15 to 18	8 to 12½	8 to 12½	4 to 6	4 to 6	4 to 6	4 to 6	4 to 6	8 to 10	20 to 25	8 to 10
Salmon, fresh, per pound	8 to 10	[illegible]	6 to 10	6 to 10	[illegible]	10 to 12	10 to 12	10 to 12	10 to 12	6 to 8	12½ to 15	10 to 12

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CHAPTER VIII.

CALIFORNIA.

HISTORY AND DESCRIPTION OF EACH COUNTY IN THE STATE OF CALIFORNIA.

The information contained in the following pages may be safely relied on as accurate, having been gathered from the most trustworthy sources; and by kind permission of Hon. M. D. Boruck, of the "California Spirit of the Times," it is embodied in this report:

ALAMEDA.

First in alphabetical order, and second in wealth and importance in the list of California counties, comes Alameda. This county, from its proximity to San Francisco, and its many natural advantages, has made rapid progress within the past five years, and at the present time gives abundant promise of a very prosperous and brilliant future. As regards population, the census of 1880 gives it at 62,976, but we think it is entirely within the limits to put the present population of the county at 100,000. Its area is 660 square miles, divided as follows: Coast Range mountains, 415 square miles; valley, 225 square miles; tule lands, 20 square miles. The lands tilled amount to 200,360 acres, of which 36,032 acres was devoted to wheat; 1,139 acres to corn; 1,458 acres to oats; 39,075 acres to barley, and, in round numbers, 3,000 acres to vineyards and orchards. The county lies immediately east of San Francisco Bay, its shore line reaching south from San Pablo Station to the limit of the bay. It is bounded on the north by Contra Costa County, on the east by San Joaquin County, on the south by Santa Clara County, and on the west by San Francisco Bay. It extends eastward to the summit of the Contra Costa Range, and on the south, still eastward, to the Mount Diablo Range, inclosing within its limits the valleys of Livermore, Sunol, Amador, and others.

The two mountain ranges are nearly parallel with each other, and rise to the altitudes of 2,000 feet or more. They are now treeless on the western and southern slopes (except in the cañons, where there are clumps of oak, laurel, madrone, alder, etc.), though originally having some redwood growth, while on the northern and eastern slopes, besides an abundance of chaparral, there is a scattered growth of both live and white oaks, with maple and madrone. The largest stream of the county is Alameda Creek, which drains Livermore Valley, and, traversing the Coast Range and entering the bay-shore, or "Alameda Plains," flows westward to the bay. Its banks are mostly timbered with sycamore and willows.

San Antonio and other creeks are tributary to this from the south. Northward from Alameda Creek are San Lorenzo, San Leandro, and other small streams, which have their source in the mountains that bound the

Alameda Plain and flow westward into the bay. On some of these creeks there is a natural growth of oak, willow, sycamore, laurel, madrone, and buckeye.

The Alameda Creek was, between 1850 and 1853, the dividing line between Contra Costa County and Santa Clara County. Its banks being bordered, then as now, with cottonwood and willow trees, in the midst of an otherwise scarcely wooded plain, made the stream appear to be a shaded avenue or walk, called in Spanish an "alameda." At any rate, so it appeared to the Spanish pioneers who first entered this region, searching for a site for a mission, and they knew the territory as the "Place of the Alameda." This circumstance gave to the new county, which was created in 1853 from portions of Contra Costa and Santa Clara Counties, and which included the Alameda Creek, its name.

Its early history may here be given for the interest of the reader and for possible future reference:

Under the Spanish rule, the Mission of San José, in what is now Alameda County, was established by the padres on the eighteenth of June, 1797. In 1820 Don Luis Peralta, of the Presidio of San Francisco, was granted the San Antonio Rancho, five leagues of land, in consideration of his long services as a soldier, and of his large family.

In 1842 he divided the whole rancho between his four sons, who already lived upon it, occupying an adobe house together near the present site of San Leandro. The residence of Don Luis himself was upon another grant, near Santa Clara. The father, with his sons, rode upon their mustangs over the territory deciding upon natural landmarks which might serve to designate boundaries and make the four divisions as nearly equal as possible. The four sections ran from the foothills to the water in parallel stripes. The site of Berkeley, Oakland, Brooklyn, and Alameda was at that time one vast oak-studded plain, growing mustard and wild oats, and ranged over by the vast herds of Peralta's cattle. José Domingo Peralta received for his share the most northerly section, or division, which included the oak grove, then called the Encinal de Temescal, now Oakland. Antonia Maria received the third section, now comprising Brooklyn and Alameda; and to Ygnacio was given the last, or more southerly, division, extending to San Leandro Creek.

Other grants in the adjacent Contra Costas were at the same time made, and the scattered Mexican families occupied their ranchos peacefully, meeting together semi-occasionally for some fandango, a bull fight, or to transact some business.

In 1835 a most interesting petition, still in existence, was made to the Governor by the settlers of these ranchos, praying that they might be put under the jurisdiction of San José de Guadalupe, instead of remaining under that of Yerba Buena (San Francisco).

As a reason, was set forth the hardship of abandoning their families for an entire year, to make the trip to attend to judicial business. The distance by land—a journey of forty leagues—was pointed out, and that to go by sea exposed them to the danger of being wrecked. And the impossibility of taking their families was mentioned on account of the heavy expense of transporting them and of the inability of Yerba Buena to shelter or otherwise accommodate them—and this only forty-five years ago!

The first white men to cross the bay and settle where Oakland now is, were the Patten brothers and Mr. Chase, who established themselves in 1850 in that part of Brooklyn once called Clinton. In 1851 Jas. B. Larue, a little east of them, at the embarcadero of San Antonio, settled and opened a store. Men, too, at this time were engaged in cutting down the redwoods which then covered the hills back of San Antonio. In all the county these were the only white men, excepting a few settlers at the Mission of San José. Others followed, however, fast enough, although these pioneers had troubled times.

Questions soon arose between Government land and Mexican grants, and many paid twice for their land. Wild cattle, too, attacked their tents and knocked down their shanties.

Provisions were high and supplies uncertain, and in 1853 the fare upon the ferry to San Francisco was one dollar, and a toll was collected upon the bridge between Oakland and Brooklyn. In 1852, Adams, Moon, and Carpentier, well known afterward, had appeared in the new town, which, several hundred having already collected, was incorporated before the end of the year, and at the same time other points in the county began to be rapidly peopled.

The county features are of every variety, from the salt marsh bordering upon the bay to Contra Costa Mountains, rising in some points almost two thousand feet above the sea level.

Reaching back from the shore with a gradual rise to the hills is a broad and nearly level region, the plain of Alameda. This plain extends through the county along the bay with a width averaging about five miles, though becoming quite narrow on the north, and is said to have been originally covered with an oak growth; but now there are only a few scattered groves of this timber in addition to the eucalyptus tree, which has been extensively planted in some localities.

Nearly if not all of the plain is now improved, and largely under cultivation in small grain and orchard fruits, including excellent currants; and in the southern part, especially near Mission San José, vines as well as nearly all kinds of fruits flourish. The creeks coming from the Coast Range are bordered by tracts of light alluvial soil, cultivated by preference in barley and "garden truck," the latter mainly by Portuguese. The bay is bordered by tracts of salt marsh lands, altogether estimated at 35,000 acres, having the usual salt grasses, and penetrated in every direction by lagoons or salt-water creeks, which receive the water of the high tides. At some points the bay shore embraces a narrow strip of sandy soil extending along the beach, while inland of this is a level belt of black adobe or, in places, salt marshes. Towards the hills the lands become more gravelly and lighter colored, and are mingled with bowlders and rock fragments, and there are occasionally tracts of adobe lands at the foot as well as on the hills.

The mountain range that borders this plain has mostly rounded summits, but is traversed and cut up by numerous cañons, though well covered with grasses and suited to pasturage and to wheat growing.

The hill soils are usually adobe. The hillsides are partly covered with a chaparral of scrub oaks, poison oak, groundsel tree (*baccharis*), bramble, etc., with manzanita on the highest points; from Grizzly and Bald Peaks, near Berkeley, probably the highest points in the north of the range, fine views may be obtained of the Bay and City of San Francisco, the Golden Gate, the mountains of the Coast Range on either side, and the distant Sierras. Mission Peak, near Mission San José, is the highest point in the southern part of the county.

The valleys lying between the two ranges of the mountains are accessible from the plains by Stockton Pass, a winding ravine leading from the San José Valley to Sunol Valley, the western third of which shows rather abundant and heavy adobe soil of the hills, the slopes being devoid of trees. Eastward the character of soil changes, becoming of a lighter hue and containing more loam, sand, and gravel, especially in the bottoms. Oak trees occur in some places. The lands of these hills are partly under cultivation, wheat being the chief crop.

Sunol Valley, into which the pass opens, is circular in outline, surrounded by hills, and was originally dotted over with oaks; it contains much good farming land.

The Vallecitos Valley, separated from Sunol only by a low ridge, is rather narrow, being surrounded with high hills, and its surface is mostly level, interspersed with some hills, and is largely under cultivation.

Livermore Valley, to the eastward of these, is about fourteen miles long, and from five to eight miles wide, and is surrounded by rolling foothills and mountains. The northern and eastern part of its surface is a plain, the southern and western a region of rolling hills, and all is dotted over with oak trees. It is watered by numerous streams tributary to Alameda Creek, and along these there is usually a growth of sycamore. The soil of this and of the other valleys that adjoin it is a gravelly loam, very productive, yielding good crops of grain and fruit, among the latter, the vine becoming prominent in the upland or hill portion, the level part being too much swept by coast winds for full success.

Amador Valley, on the southeast, is about eight miles in diameter, and is nearly surrounded by grassy hills, the spurs of the two mountain ranges. Its soil is a sandy loam, and produces good crops of wheat.

The lands of the county under cultivation embrace 47.4 per cent of the total area, and average about 303.5 acres per square mile, the county ranking third in the State, the counties of the San Joaquin and Sacramento above having a greater average.

After San Francisco, this county averages more extensively than does any other in the manufacturing industries—sugar, salt, soap, pottery ware, leather, coal oil, gunpowder, nitro-glycerine, agricultural implements, and other articles being made, and swelling the county's wealth to a very high figure.

Including the railroad works, probably some $5,000,000 are represented in this interest alone. In the way of communication this county is particularly favored. The county roads are all excellently kept, and furnish in the vicinity of Oakland, and also in the mountainous districts of the county, some magnificent drives of a highly picturesque and even wild character.

Oakland has light street railroads intersecting the city and its suburbs, and the local and general lines of the Central Pacific, Oakland being the terminus of the overland trains, furnish the county with convenient transporting facilities. There is a line by the way of San Leandro and Mission San José from Oakland, Niles to San José, and also one between these two points (narrow-gauge) by the way of Alameda, San Leandro, San Lorenzo, and Ravenswood. The overland road, by the way of Stockton, goes through Brooklyn, San Leandro, Niles, Pleasanton, Livermore, Altamont, and Midway, in this county, and the line by way of Martinez goes along the northwestern border of the county, through Oakland, Berkeley, and West Berkeley.

There are two local ferry routes across the bay, between Oakland and San Francisco, and one between Alameda and San Francisco. As early as 1850 a small ferry ran between San Antonio embarcadero and San Francisco once a day, the fare being $1 per trip. In 1863 the present system of local railroad was completed as far as Broadway, Oakland, and six round trips were made every day, the fare being 50 cents per trip. The fare is now 15 cents per trip, and only 5 cents per trip if a monthly commutation ticket is purchased. Twenty-three round trips a day are made, and communication is established, not only to Broadway, but to Brooklyn and Alameda, by two different routes, and to Berkeley.

Townships.

The county is divided into six townships—Oakland, Brooklyn, Alameda, Eden, Washington, and Murray. Oakland Township, outside of the city, extends north through several miles of farming country, to Berkeley, the University, and West Berkeley, the town; to the Oakland race track and the grounds of the Deaf and Dumb and Blind Institute.

Brooklyn Township, including the town of Brooklyn, now East Oakland, contains 24,000 acres, and extends from Lake Merritt and the slough to San Leandro, and from the foothills to the bay. Just east of the town limits, Adams Avenue has some of the finest private residences in Oakland, and Fruit Vale has some famous orchards of apple, cherry, and other trees, and is the home of many of the wealthy and cultured citizens of San Francisco and Alameda Counties, whose private residences and highly ornamental grounds attract and delight the eyes of all visitors.

Grain and vegetables are raised in the township. It contains extensive manufacturing interests, and the well known ladies' school—Mills' Seminary. It has also the shipping basin at the head of San Antonio Creek, which will be a great commercial advantage when the harbor improvements are completed.

Alameda Township is the smallest in the county, and consists of a peninsula four miles long and one and one half miles wide; bounded on one side by San Antonio Creek, and on the other by the bay.

It is a level plain of sandy soil, covered with oak trees, and the climate being even milder than Oakland, is fast becoming a favorite location for private residences.

The City of Alameda has taken a long stride in advance during the past year. The people have voted $100,000 to be raised on bonds and spent on a complete sewer system and flushing works. The system includes three main sewers, and the Trustees are determined to have nothing but the best materials used on a scientific plan. Preparations are being made to light the city by electricity on the mast system. With these improvements well under way, and her existing two local railroads and ferries connecting with San Francisco, Alameda expects to be the model residence city on the Pacific Coast. To show how high the credit of Alameda stands, it may be mentioned that $62,000 of its sewer bonds, bearing 5 per cent per annum interest, were sold at a premium of 5.94 per cent.

Taken altogether, Alameda is one of the most beautiful suburban places in the vicinity of San Francisco, and very many of the prominent business men of the Pacific metropolis have built fine homes, in which they take great pride, rest, and pleasure.

Bay Island Farm is a fertile island belonging to the township, and lying within the bay, and the land is very productive, and is said to realize $500 per acre, when planted in asparagus and other early vegetables for the San Francisco markets.

Eden Township is in the center of the county, and has a milder climate than has Oakland, having less fog, and is the fruit raising district of the county. The soil is also unusually rich, on account of the annual overflow of the streams which flow down from the mountains. The County Infirmary, with its farm of 124 acres, is in this township, between its principal towns of San Leandro and Haywards.

These are pretty and prosperous towns of 1,000 inhabitants; San Leandro having been for 17 years the county seat, and Haywards is the resort of summer visitors, and is the point of departure for the best roads leading into Contra Costa County, to Mount Diablo, and into the Amador and Livermore Valleys. Salt making is a leading industry, the ponds for collecting and evaporating the brine being very numerous along the marsh lands.

Washington Township is in the southwestern part of the county, and is in extent 11 miles from north to south, and 12 miles from east to west. Like Eden, it has a marsh frontage on the bay, and rises up into the mountains.

Mission Peak, the highest of the Contra Costa Range, is an abrupt and angular summit 2,300 feet high, and Alameda Cañon, through which the stream flows and along which the railroad winds, is also a noteworthy natural feature, on account of the abrupt steepness of its cliffs and the exceeding beauty of its scenery.

The Mission of San José, settled in 1797, is in this township, the old Mission church still standing, although having been partially rebuilt at various times, as recently, after the great earthquake of 1868, which was more severely felt in this neighborhood than elsewhere.

Other towns in Washington Township are Alvarado, Centreville, Washington, and Niles. Salt works abound, and productive grain farms. Fruit is raised for shipment, and there are several large nurseries that have more than a local reputation. The hills are used as sheep ranges, and there are probably 50,000 sheep in the township. Grapes are also successfully cultivated by a large number of farmers, and some very fine vineyards are made profitable. The climate and soil have been found favorable to the successful cultivation of most of the semi-tropical fruits, and the mulberry grows and thrives, and it is probable that silk culture may be extensively engaged in before many years.

Murray Township is in the southeastern part of the county, and has no frontage on the bay, but is in and between the two chains of the Mount Diablo.

It measures 20 miles from north to south, and 20 also from east to west, and it comprises one third of the entire county. Its scenery is very fine—the rolling country covered with grass and dotted with magnificent trees of the white oak, sycamore, and other varieties, having often all the appearance of an English park.

Brusha Peak, near Livermore, is one of the highest eminences, though steep and rugged hills are not wanting in other parts of the township. The principal valleys are the Livermore, Amado, Sunol, Alamo, and Tassajera.

These valleys have a gravelly soil and are very productive, seventy-five bushels of grain to the acre being sometimes obtained; but as these valleys have been described elsewhere in this article, it is not necessary to go in further detail.

Among the mountains are situated the Livermore Pass and the great Central Pacific Railroad tunnel. There are several coal mines in the township, among them the Corral Hollow, the Arroyo Mocho, and the Summit, the two latter having been successfully worked, and the quality of coal in all is pronounced by experts to be good.

Livermore is the principal town in the township, is on the line of the railroad, 47 miles from San Francisco, and contains now probably about 2,000 inhabitants as against 1,000 in 1880. The town is growing more rapidly than any other in Alameda County. The impulse taken on by the town is due almost entirely to the extensive planting of vineyards in the neighborhood, started some five years ago through the efforts of Viticultural Commissioner Wetmore and other far-seeing business men, who recognized the value of this section as a future wine producing center. The young vineyards are now coming into bearing at the rate of 1,000 acres a year, and two large public wineries were established there last summer.

The town of Livermore has a post, express, and telegraph offices, and supports several good weekly papers; and its schools are of a high character, and the religious and moral wants of its people are well looked after by its prosperous churches.

Pleasanton is another delightfully situated town, at the base of a wooded mountain, and at the entrance of Livermore Valley, on the Central Pacific Railroad, approaching from the west, 42 miles from San Francisco and 11 miles from Niles. It has probably about 1,000 inhabitants, a post, express, and telegraph offices, a good newspaper, good schools and churches, prosperous merchants, and, on the whole, an air of thrift and prosperity.

San Leandro was the county seat of Alameda until that young giant, Oakland, stepped in and took away the honor. It is situated in Eden Township, and is 9 miles distant from Broadway. San Leandro has greatly improved since it was incorporated as a town, in 1872. It has level, smooth, and well kept streets. It has a handsome avenue, lined with trees, of a mile long. San Leandro is supplied with pipe water from the great reservoir of the Contra Costa Water Company, which lies 2 miles north of the town. The land in San Leandro and vicinity is well adapted to gardening and fruit growing. It has a good local paper, the "San Leandro Reporter," R. A. Marshall, editor and proprietor, which is ably conducted, and faithfully represents its interests. San Lorenzo is a horticultural and agricultural village 3 miles south of San Leandro. The soil is unsurpassed for productiveness, and in the immediate vicinity is a forest of fruit trees. The first Alden fruit drying factory in the State was established here in 1873. San Leandro is celebrated for its grove, where most of the county gatherings are held. Population, 200.

Haywards is a thriving agricultural town of about a thousand inhabitants; is 3 miles east of San Lorenzo, and 14 from Oakland. It is charmingly located, and bears all the marks of progress and thrift. It possesses many manufactories, and two or three first class country hotels. A great deal of fruit is cultivated in Haywards and vicinity. Haywards is the site of the old Castro homestead, and takes its name from the first American settler in the place. Haywards was incorporated in 1876, and has a population of 1,000. Mount Diablo is best reached by Haywards from Oakland, and by it is the nearest route also to American Valley and Livermore.

Alvarado is 21 miles from Oakland, in a southerly direction, and, next to the Mission, is the oldest place in Alameda, of which it was the first county seat. The Alameda Creek flows through Alvarado. It is situated on low ground, bordering on the marsh land, in the midst of a rich agricultural district. It has been successively known by the names of New Haven, Union City, and Alvarado, the latter of which was given it out of compliment to Governor Alvarado. It was the county seat in 1853, but no county buildings were ever erected there. Alvarado is noted for its flowing and artesian wells, and will become still more noted in the near future for the products of its beet sugar manufactory, which are increasing yearly. The soil here is peculiarly favorable for the growth of the sugar beet, and a large area is devoted to its cultivation, and this area is constantly increasing. The sugar interest is attracting a marked attention, and the best European methods are being carefully studied by the energetic and public spirited managers, and no expense is spared to make of this enterprise a pronounced success.

Perhaps we cannot do better than to quote a portion of an able paper, contributed by E. H. Dyer, Esq., Superintendent of the Standard Sugar Refinery. He says:

"Seven years ago a company, known as the Standard Sugar Refinery, established a beet sugar factory at Alvarado, in Alameda County, and has proved a marked success. The company purchased the machinery used by the Sacramento Beet Sugar Company about 15 years ago, to which it has added modern improvements, at considerable outlay, and now has a splendidly equipped factory, with a capacity of 80 tons of beets per day. By a new process of treating the juice—and which process the company has patented—we are enabled to obtain about 10 per cent refined sugar in first product—a larger percentage than is obtained in one product in any beet sugar factory in the world. The richest sugarcane known has never yielded so large a first product. By this process, we are enabled to deliver in market, pure, white refined sugar, for about 5 cents a pound. Refining grades of imported sugar, of 91 degrees polariscope test, are worth, in our markets to-day, 5.53 cents per pound.

With a factory of a daily capacity of 200 tons of beets, we can manufacture sugar for much less than 5 cents per pound. The Standard Sugar Refinery has made seven campaigns, each of which gave satisfactory results. We have made from 1,500,000 to 2,500,000 pounds of refined sugar each campaign, which has sold as readily in the market as the best quality of cane, and the quality of the sugar will compare favorably with any in market. It has taken some years for our farmers to become accustomed to raising beets for sugar. At first they did not take to it very readily, but now we could obtain many more than we can use, at $4 per ton. The average yield is fully 15 tons per acre, often 25 or 30 tons. Ours is an improved variety of Silesian beet, known as the 'Lerbersetter Imperial Rosa.' It has a red skin, but is white inside, and is very rich in saccharine matter."

We come now to speak of

Oakland,

And its immediate surroundings. As this second city of California has had a somewhat eventful past, so is it destined, by all the advantages it possesses, to have a large and brilliant future. The climate is delightful the year around; ever a little milder than San Francisco, the trade winds harsh in the latter city being here tempered to a gentle breeze, and the evenings are at once fresh and balmy. The drainage system is being rapidly perfected, and already such radical improvements have taken place as to leave no room for question on that score. The roads in and around the city are well kept, and nearly all well shaded, trees being planted (or left) boulevard fashion, on almost every street. The semi-retirement of the place allows ladies to take advantage of these opportunities, and riding and driving is indulged in to a most healthful and sensible extent. The wealth of the prosperous merchants of San Francisco has largely builded and beautified homes, and in them culture and fashion have taken up their abodes. The population, as a whole, is refined, moral, and in the best sense exclusive, the city, from the peculiarity of its growth and development, being remarkably free from that lower substratum of society, whose favorite haunts are the slums and by-ways of great cities. From all these it has become somewhat the fashion to speak of Oakland as the Athens of the Pacific Coast, and it is to the credit of this fair city, that the name is better deserved than many another more seriously given. It has been said many times, with gentle derision, that Oakland is but the bedchamber of San Francisco, but she is becoming ambitious to outgrow this reputation, and has done much within the past few years, by the liberal encouragement of manufacturing establishments, to almost give one faith in her confident prophecy, that she is destined to become a great manufacturing center.

If this should ever come true it will be a long way in the future, and, to our thinking, would be of doubtful advantage. Even San Francisco is not a great manufacturing center; and it is a question if any city in California will ever rise to that distinction, for this is not now, and for many years to come will not be, a manufacturing State; and her brightest prospects for the future lie not in the direction of manufactures, with all its attendant ills, but in the generous development of her paramount agriculture and mineral resources. But to return, Oakland is a place for *homes*, where families may be successfully reared, and men and women made under conditions that are denied to most other places. Speaking of her material growth in a matter of fact way, we may say that:

The growth of the City of Oakland during the past year has been characterized mainly by the erection of a very large number of fine houses and cottages for residence. The number of buildings erected within the city limits during the year is 528, classified as to cost as follows: Under $1,000 each, 85; from $1,000 to $2,000, 273; from $2,000 to $4,000, 118; from $4,000 to $10,000, 41; from $10,000 to $20,000, 5. The total cost of the foregoing is estimated (on the builders' figures) at $1,184,000. Besides the foregoing, six important blocks, mostly for business purposes, were erected, including the Coleman block, on Twelfth Street and Broadway; the Camden block, on Twelfth and Franklin Streets, and the Hancock block, on Washington Street, near Seventh. These blocks will add at least $100,000 to the building account; and the extensive buildings and machinery now erecting at the jute mills, will cost over $30,000. The manufacturing interests of Oakland have been prosperous during the past year. The recent rise in the value of nails has enabled the Pacific Nail Company to give their employés an increase of 20 per cent on their previous wages. The cotton mills at East Oakland were started up during the year, and they pay out about $1,500 every two weeks in wages. The Judson Nail and Iron Works, and the California Iron and Steel Company, at Emeryville; the California Hosiery Works, Miller's Potteries, and other manufacturing enterprises of less moment appear to be running prosperously, and they all employ white labor exclusively. The number of hands employed in the Oakland factories is about 3,000. During the past year much attention has been attracted by the proposed extension of the South Pacific Coast Narrow Gauge Railroad from the present terminus, on Webster Street, northward along Telegraph Avenue. Senator Fair purchased the San Pablo Avenue and Telegraph Avenue Street-car lines, and promised, on the part of the company, that if they were allowed to extend their lines on Telegraph Avenue, it would be only the beginning of a transcontinental line, with Oakland for the western terminus. Nevertheless the property owners on the street named do not seem to be inclined to consent to the extension, and for want of this the project hangs fire.

The company, however, have secured by purchase a large block of land on Broadway, at the junction of San Pablo and Telegraph Avenues, and will proceed immediately to construct a commodious depot. In the meantime they have obtained from a lenient City Council valuable franchises to construct cable lines of railroad along these avenues, and are already pushing the one on San Pablo Avenue with commendable energy, in order to share with the Central Pacific people the large and profitable travel between Oakland and San Francisco, from which active competition Oakland expects very much, and anticipates for the coming years greatly increased prosperity.

Considering Oakland in the light of her homes, her exceptional educational facilities, her churches, her associations for the amelioration of men individually and collectively, her beautiful avenues, and surroundings not surpassed for beauty in far-famed Italy, and she is a city of which all Californians may well be proud and to which our eastern and European visitors are sure to go to partake of a large hospitality, which is not the least of her virtues.

This paper would not be complete did we not speak of

Berkeley,

Four and a half miles from Oakland, and reached by horse cars, by ferry, and by railroad. Here is located the University of California, 400 feet above the bay, with a magnificent view through the Golden Gate.

Two hundred acres, watered by mountain springs, and all easily irrigated, belong to the University. The water supply is in a reservoir of 38,000 gallons capacity, in the cañon, at a sufficient elevation to carry over any building contemplated. The site has a diversified soil, suitable for agricultural experiments, which experiments, intelligently made and generously published, have always wrought great good for the State and justified the wisdom of the Agricultural College. The University has a large endowment fund, comprising appropriations of over $200,000, the income constantly increasing with the rise of real estate. At present eight colleges are combined in the courses presented. They are the Scientific, Agricultural, and Medical Colleges, and the Colleges of Mechanics, of Engineering, of Chemistry, of Mining, and of Law. The College of Letters confers the degree of A.B., the College of Science that of B. of Ph., and the College of Medicine that of M.D. There is no charge for tuition, ladies are received, and pupils need only to be at least sixteen years of age and to bring satisfactory testimonials.

The town of Berkeley is building an arterial sewer system, bonds for $40,000 having been voted for that purpose. A number of new manufacturing enterprises, including a pottery and a tannery, are projected for West Berkeley, but the most important enterprise in prospect is the building of a wharf and mole to deep water, with warehouses for grain thereon, under the franchise obtained in 1885 from the Board of Supervisors by Robert Risdon and other capitalists of Oakland. The population of Berkeley may be fairly stated at 8,000.

It only remains to say that the assessment roll of the county for 1885 foots up $61,311,528, against $52,220,573 for 1884. The increase in the assessment of $9,090,955 is partly due to the increased valuation imposed by the State Board of Equalization, and partly to the natural and legitimate, slow and sure steady progress of the county.

ALPINE.

Alpine County is located in the eastern part of California, bordering on the State of Nevada, the northern extremity beginning at the elbow, or where the dividing line between the two States turns from a north and south to an easterly direction, and is located in the summit and on the western slope of the Sierra Mountains. It was organized under an Act of the Legislature of 1863–4, from a portion of El Dorado, Amador, Calaveras, and Mono, and derives its name from the Latin word "Alpinus," meaning high and lofty mountains, which no one after traversing through the country will doubt but that it was appropriately christened. The people of Alpine County can pride themselves on being "above" many other citizens of sister counties of the State in altitude, which averages from 4,000 to 11,000 feet above the level of the sea. The county was first settled at a small villa in the northeastern part of the county called Woodford's, at the base of the mountain on the old emigrant road leading through Hope Valley from Carson City to the then called Hangtown. The date of this settlement was in the year 1855. Soon afterwards there was a small water-power sawmill erected at this place on the bank of Hope Valley Creek, where lumber was sawed and furnished for building material at Genoa in Carson Valley, Nevada. The settlement of the county was very slow from that time until the years of 1863–4, when the excitement of the Alpine gold fields caused many people to emigrate here from all parts of the Pacific Coast in search of the hidden treasure.

At that time, and since, many claims have been located and worked, but with indifferent success. Sanguine fortune hunters saw visions of boundless wealth in the numerous silver-bearing lodes with which its mountains abound. But the refractory nature of the ore, together with the extravagance and wastefulness which usually attend the works of inexperienced miners, made those dreams of wealth very difficult of realization, and early mining in Alpine County was virtually a failure in consequence. Notwithstanding the state of affairs which thus existed, in the first two decades of its history as a mining county the production of the precious metals was considerable. In later years more perfect appliances were brought into requisition for the reduction of the base ores which constitute the greater part of the leads of the county, and these were extracted with more care and economy; but again the work of mining was doomed to failure, this time principally on account of bad management and extravagance in the erection of mills, furnaces, hoisting works, etc. It is to be hoped that, before many years, capital will be directed to this county, and that, with well directed energy, its mountains will be made to yield up their treasures of gold and silver for the benefit of the avenues of trade.

Topography.

The county is a succession of mountain ranges, with high and precipitous peaks, interspersed with numerous lakes, rivers, creeks, and beautiful valleys. Silver Mountain is the highest peak in the county, having an altitude of 10,000 feet above the level of the sea, and is located near the western boundary of the county and about 18 miles south of Woodford's. The town of Silver Mountain is situated at or near the base of this mountain, from which it derives its name. Round Top is another one of Alpine's towering peaks (it is 10,600 feet high), on the summit of which is located one of the Pacific Coast Signal Service Stations, which has been under the supervision of Professor Davidson during the past summer. There are numerous small lakes throughout the county. The waters of these lakes are clear, cold, and the most beautiful of all waters. Many of them contain the mountain trout. Of these are Blue Lakes and Caples Lakes, in the western part of the county, near the Amador and Hope Valley Wagon Road, which are visited by many people during the summer season. The county is bountifully supplied with brooks, creeks, rivulets, and rivers, many of them heading high up in the mountains, fed by the numerous lakes and the melting snow, which keeps them running through the summer season. Almost all these streams are bountifully supplied with delicious mountain trout. These numerous ravines afford plenty of water for irrigation in the different valleys, which item is looked upon by the ranchers as a great advantage over many other localities where there are not these advantages. The Carson River heads in the southern part of the county, and flows from south to north through the county. It is fed by numerous streams, viz.: the East Fork of East Carson River, West Fork of Carson River, Wool Creek, Silver Creek, Monitor Creek, Smith's Creek, Mogul Creek, and Indian Creek. Among these mountains are numerous valleys; the largest and most noted are Diamond, Hermit, Pleasant, Hope, Faith, and Charity Valleys.

Diamond Valley lies on the northeastern part of the county, and contains some very rich productive ranches, producing wheat, barley, hay, oats, and potatoes; and as there is no great amount of these cereals and vegetables raised in the county, the farmers of Diamond Valley find a ready home market for their produce at good remunerative prices.

The three sister valleys of the county are Hope, Faith, and Charity—valleys which are located in the northwestern part of the county at an altitude of about 7,500 feet above sea level. These valleys are inhabited only during the summer months, and then by stock raisers and dairymen. The dairy interest in these three valleys is of considerable importance, and more than 30,000 pounds of butter of an excellent quality is produced annually, which is readily marketed in the cities of Carson, Gold Hill, Virginia, and other towns of Nevada, which are much better butter markets for the mountain dairymen than the cities of San Francisco or Sacramento. The merchants of Gold Hill, Carson, and Virginia Cities also prefer this mountain-made butter from dairymen whom they purchase of from year to year, and seldom fail in getting a good article, packed in 50 and 100 pound firkins, for their winter custom.

Pleasant Valley is near the town of Markleeville, where considerable hay is cut and marketed to the residents hereabouts. There are many other small valleys throughout different parts of the county where sheep and cattle are grazed during the summer season. The nutritious bunch grass which grows so luxuriantly in those mountainous regions is of an excellent quality, and stock fattens very rapidly upon it. The larger amount of the stock which is grazed in Alpine County during the summer is migratory, driven here from adjacent counties.

Population.

The population is small, considering the extent of the county, not exceeding 750 all told; but this is easily accounted for, considering the undeveloped industries and the situation of the county, as there is but a small proportion of its area tillable, and its population principally have to depend upon the mining and timber resources, of which Alpine County will probably have some day a bountiful income of wealth, although there are unoccupied Government lands in the county which might be cleared of its sagebrush by the industrious man, and made to produce grain and hay in a profitable way. But as this county is in her youth yet, we look forth to the future with encouraging prospects to the development of its mines, the improvements of the uncultivated tillable lands, and the time when a large revenue may be added to the county's wealth from the vast timber forests of fir, tamarack, spruce, and pine, which are interspersed in the valleys and on the mountains throughout the county. And as the Comstock mines are reaching out for wood and lumber, their supply from the Lake Tahoe country will soon be consumed, and then, no doubt, this county will furnish those mines with timber and wood, as Alpine County has a great advantage over many other timbered sections for transporting wood in drives, down the Carson River to Empire, where it is taken from the river and shipped by the Virginia and Truckee Railroad to Gold Hill and Virginia. These wood drives are run during the spring of the year, while the water is high, and no freight for transportation is paid. There has been many thousands of cords already cut from Alpine forests, but there is so much timber left untouched that there might be over a million cords of wood cut and shipped down the river.

Much of the above information was obtained from an interesting paper prepared by Geo. E. Lukens, Esq., editor of the Monitor "Argus," published at Markleeville. Another authority says:

The entire western section of the county is a wild, mountainous region, whose grandeur of scenery vies with the Alpine regions of Europe. From November until late in June the region is wrapped in a mantle of snow, varying in depth from two to fifty feet; during the remainder of the year it forms a vast mountain pasture for thousands of sheep and cattle that are driven there from the lowlands of the State to feed for summer and fall. The greater part of the surface of this mountainous region, as well as of the lower and eastern section of the county, is covered with forests of heavy and valuable timber. All the coniferous trees common to the western slope grow to a large size on all the mountain sides. When the Comstock was in its zenith the wood and lumber business of the county was quite an important factor in its activity, but since the decline of the mines there this branch of business has been greatly crippled; yet there are annually cut from 15,000 to 20,000 cords of wood and 750,000 feet of lumber sawed.

In the eastern part of the county farming is carried on to a considerable extent, Upper Carson Valley, Diamond Valley, and Dutch Valley being the chief seat of this industry. New lands are being taken up, reclaimed, and put under cultivation. As a consequence, the acreage is annually increasing. Among the mountains in the elevated valleys, summer dairying is an important industry. The butter from these mountain dairies commands a better price than that of any other localities.

In August, 1885, Markleeville, the county seat, was almost wholly destroyed by fire. This was a severe loss to the county, but the town has been partly rebuilt and will soon be far ahead in every respect of the old town destroyed. The structures erected thus far—two hotels, three saloons, a meat market, a general merchandise store, and several private dwellings—are all substantial buildings, and they give an improved appearance to the town.

Alpine County suffers one great trouble concerning its eastern boundary line. Two recent official surveys have found an error existing in the original survey, by which the State boundary is nearly a mile too far westward. This fact gives rise to frequent disputes and inconveniences, particularly in the collection of taxes, as those residents along the boundary line are vexed with the question of which State they are in and to which their taxes belong.

The many beautiful lakes high up among the mountains are favorite summer resorts for people living at lower altitudes, who come and spend a couple of weeks or months on their shores during the summer. The Blue Lakes, especially, are becoming a famous rendezvous for summer pleasure seekers.

The county contains 730 square miles, and its tilled lands amount to something less than 1,000 acres. Area planted in wheat, 179 acres; in corn, 8 acres; in oats, 236 acres; in barley, 113 acres.

Towns.

Markleeville is the county seat of Alpine County, and is located on the banks of the west fork of Carson River, and about 8 miles south of Woodford's. It has a beautiful location at or near the base of the mountain on its eastern slope, where almost perpetual snow can be seen looking to the westward. The Legislature passed an Act for its incorporation a few years ago, and soon afterwards a fire company was organized for the protection of the city; but that was in the palmy days of the county, when Markleeville was quite a business center of traffic for the county. Now the population has decreased, until at present the town contains less than 250 inhabitants. There are two hotels, two stores, school house, and many good dwelling houses, some of which are unoccupied at present. The I. O. O. F. have a large two-story frame building. The lower story the county uses for a Court-room and offices for county officials.

Monitor

Is a pleasant village of about 200 inhabitants, and is 8 miles southeast of Markleeville, located in a narrow gulch called Monitor Cañon, on Monitor Creek. It has two large and commodious hotels, two stores, blacksmith and shoe shops, several saloons, with the large and powerful Colorado No. 2 quartz mill in her midst, and, in fact, is a lively little mining camp.

Silver Mountain

Is a small town located on the banks of Silver Creek, at the foot of Silver Mountain Peak, and is about 11 miles southeast of Markleeville. The town is in a beautiful location, with a splendid summer climate, but at times in the winter it is almost snow-bound, and the roads well nigh impassable. It is well supplied with stores, hotels, etc., common to other mountain towns.

In many parts of the county are jets of mineral springs, both hot and cold. To sum up the chief attractions of Alpine County, she offers labor to laborers in her mines and wood camps, paying good wages; health to the weary invalid; many attractions to the sportsman; and presents to the eye of the beholder magnificence of mountain scenery scarcely less than that of the Alps, with the most healthful and delightful summer climate to be found anywhere.

AMADOR.

Amador County adjoins Sacramento on the southeast, and belongs exclusively to the foothill section. She has an area of 737 square miles, or 420,000 acres, and is bounded on the north by El Dorado, south by Calaveras, east by Alpine, and west by San Joaquin and Sacramento. The county is very narrow, and lies east and west between the foot of the high Sierra and the Sacramento plain, being bounded on the north in part by a fork of the Cosumnes River, and on the south by the Mokelumne River. Numerous creeks, flowing independently of these rivers westward toward the Sacramento, aid in supplying the county with an abundance of water.

The eastern portion is very narrow, and for a distance of 25 or 30 miles is embraced within the upper foothills region, having an elevation of from 2,000 to 4,000 feet above the sea; its surface is rugged and broken (the streams finding their way through deep cañons) and well timbered. The rest of the county, or lower foothills region, is hilly and partly timbered, and is interspersed with numerous fertile valleys, varying in length from 3 to 6 miles, and in width from 2 to 3 miles. Ione and Jackson Valleys are each 12 or 15 miles long, and from 2 to 5 miles wide. The soils are red loam, more or less gravelly, with a scattered growth of oaks. The western part of the county is connected with Sacramento and San Francisco by the Amador branch from Ione City to Galt, and thence by the Central Pacific Railroad. Amador was always one of the wealthiest mining counties in the State, and to-day stands third in the list of gold-producing counties, her average annual yield at present being about $1,500,000. Her gold product now comes wholly from the quartz mines, the placers having been exhausted many years ago, since which time agriculture and horticulture have come to the front as leading industries.

The past year has been one of average prosperity in Amador County, crops from vineyard and orchard being especially good, and a general improvement in business in the towns throughout the county, particularly in Jackson, the county seat.

Amador possesses a variety of resources, the development of which should attract a large population. Among others, she has an almost inexhaustible timber supply, which needs but convenient railroad transportation to make it a source of vast wealth to the county. There are great forests of pine and oak as yet untouched by the woodsman—indeed, untrod except by the drover or hunter. The western portion of the county is splendidly adapted to farming and fruit growing, and great advancement has been made in these industries of late years. Wheat, barley, oats, rye, and corn yield abundantly, and the fertile bottom lands adjoining the Cosumnes and Mokelumne Rivers produce large crops of vegetables. Irrigation is not required for grape raising in the foothills, which accounts for the superior quality of the grapes and wine that come from Amador.

Climate, Towns, Etc.

In point of climate, Amador ranks second to no county in the State. The altitude varies from 300 to 8,000 feet, which affords opportunities for persons of various constitutions to select the altitudes best suited to them. The county seat of Amador is Jackson, one of the oldest settlements in the county, and has a population at this time of about 1,500. Like other former mining communities, the present population of Jackson is less than it was 25 years ago, but it is of a more settled and permanent character. The same may be said of Volcano, Sutter Creek, Amador City, Plymouth, Ione, Drytown, and other towns in that county. The present output of gold comes from a few rich quartz mines, and mining is by no means general. The Amador Branch Railroad connects at Ione with the Southern Pacific trunk line at the town of Galt, thus affording convenient and rapid means of communication between Amador and Sacramento or Stockton.

Future Prospects.

Unlike the older settled farming communities in the valley, Amador County offers excellent inducements to newcomers in search of a healthful, productive locality in which to establish themselves in permanent homes. The foothills, as before stated, are splendidly adapted for small farms, orchards, vineyards, etc., and land can be had there at very moderate prices. In the western portion of the county, about Ione, the fact has already been demonstrated that raisin culture is profitable, as well as wine making; and there is practically no limit to the market requirements for these commodities. Already the merchants of the Eastern States are beginning to rely on the raisin product of the Pacific Coast, instead of the foreign article, and it is only a question of a few years when California will be expected to supply not only the United States, but other countries, with raisins. As one of the results of early mining operations in Amador, the county is traversed by innumerable canals and water ditches, which can be utilized, if necessary, for irrigation purposes. These ditches aggregate some 500 miles in extent, and are supplied from never-failing sources. The county is also singularly favored in the matter of water power for manufacturing purposes, and some day these great agents of commerce will be utilized.

To make the information concerning this county as full as possible we quote from one writer who speaks of the needs of the county as follows:

What Amador Needs.

Amador County needs and deserves an increase of permanent settlers. Families from the Eastern States, with means enough to purchase farms or unimproved lands, and intending to settle down to a steady and patient life work for a moderate competency, can find here all reasonable inducements. In the valleys of the lower part of the county competencies are awaiting energetic and industrious men who will devote themselves to the raisin grape culture, supplemented by market gardening. For this industry, which has so far been neglected, comparatively small tracts of land are needed. On Long Island, the writer has known many comfortable fortunes made by the cultivation of vegetables for the New York market, distant 40 or 50 miles from the producer; and the poorest land in Amador County will compare favorably with the best on Long Island: to which is to be added a climate in which gardening operations can be carried on nearly throughout the whole year. From the county line it is but little more than 30 miles to the City of Sacramento, over a good road, so that it would be quite practicable for a farmer in that portion of the county to load up with fruit and vegetables in the afternoon and dispose of his load in Sacramento the next morning. With the present arrangement of one train a day on the railroad, the products of market gardens could be conveyed to San Francisco in good order; and should there be an influx of the right kind of people to take hold of this form of industry, an amount of traffic could soon be created to justify the running of a night train—like the peach and milk trains of the eastern roads—which would take the garden and dairy produce from the farm on one afternoon and land it in San Francisco market early the next morning. I wish I could impress the agricultural reader, who may be looking for a new home, with my own strong conviction of the adaptability of this region to the successful prosecution of market gardening—one of the most remunerative forms of agricultural labor. The soil, climate, and means of transportation are all here, and even where water is needed it is obtainable by a moderate outlay in connection with the natural streams or the numerous ditches. It is emphatically a region to demonstrate the value of small farms managed with intelligence and industry.

There is no inducement for the immigration of idlers, speculators, or men who propose to grow suddenly rich by the employment of the capital of other people. The professions, school teaching, store keeping, and most of the mechanical trades are fully supplied, but there are many inducements for the establishment of manufactures and the settlement of a large industrious agricultural population.

Schools, Churches, Etc.

If the intelligence and morality of a people is to be judged by the existence of schools and churches, Amador has no reason to fear the test. In every town there are churches—Ione City has four, three Protestant and one Catholic—and good school houses and competent and well paid teachers are abundant enough to insure a good education for every one of the 2,659 children of school age which are now on the school census. Good roads extend in every direction. Taxes are not more burdensome than in other counties. County buildings are erected, the county indebtedness is small, and the county officials are paid by salary and not by fees.

In conclusion, we may add that there are four excellent newspapers published in the county—the "Amador Sentinel," "Amador Ledger," the "Times," and the "Dispatch"—all of which appear to be well supported, which is a pretty sure evidence of the prosperity of the people.

The following was the

Taxable Wealth in 1885.

Real estate and improvements	$3,811,827
Head of cattle	7,694
Head of goats	3,279
Head of hogs	5,621
Head of horses and mules	2,328
Head of sheep	12,850
Tons of hops	18,000
Acres sown to wheat	4,000
Acres sown to barley	11,600
Acres sown to corn	550
Acres planted in vines	645
Gallons of wine made	125,000
Grapes sold for market (pounds)	475,000

BUTTE.

Butte is distinctively one of the great counties of the State, not so much on account of her extent of territory (which is large) or the number of her population, but great in the exceeding variety and extent of her resources. She is at once great in her present agricultural product, and greater in her promise for the future; great in the extent of her lumbering interests; great in the richness of her mineral deposits, and prospectively great, at least, in her orchards and vineyards. But few counties can boast as much. She has an area of 1,720 square miles divided, say, into 595 of rich Sacramento Valley lands; of treeless adobe lands, 70 square miles; lower foothills, 965 square miles, and of the higher foothills, 160 square miles. She is bounded on the north by Tehama and Plumas, on the south by Yuba and Sutter, on the east by Plumas, and on the west by Colusa and Tehama, or the Sacramento River.

To make the description as complete as possible, we quote from "Agricultural Features of California," prepared by Professor Hilgard, of the University of California, in which he says:

> Butte County is separated in part from Colusa on the west by the Sacramento River and Butte Creek, these streams receiving the drainage from the western half of the county. Very near the heads of these small tributaries, and flowing in a general south, but irregular course, is Feather River, whose tributaries are all on the eastern side. The surface of the county has the general appearance of two successive plains, both sloping westward. The

one on the east, or the foothills, is broken and rolling and has Feather River at its foot; the second, or the plains proper, rise rather abruptly from this river and slopes gradually and with a more even surface to the Sacramento River on the west. A large part of the latter plain, forming a belt of from 12 to 20 miles wide along the Sacramento River and through the county, is quite level, and is embraced in the great valley regions. It is the chief farming portion of the county. Its surface is treeless, and its lands vary from the rich, sandy loam of the rivers to the stiff, black, and gray adobe, which is underlaid by limy hardpan at the depths of from one to several feet. A large adobe tract lies between the railroad and the alluvial lands of the Sacramento River, and is liable to overflow in wet seasons. These lands are said to yield an average of 30 bushels of wheat or 45 bushels of barley per acre. The adobe lands are bordered on the east by a light, reddish loam, which is considered an excellent fruit and wheat land, and at some points are an oak growth.

The line separating the valley from the foothills is said to be well defined, the surface at the latter being not only broken, but barren and stony, with an abundance of bowlders. This line passes about 3 miles east of Chico, and a short distance west of Oroville, into Yuba County on the south. A belt of red land lies near the foothills.

The lands of the foothills region are generally of a red and gravelly-clay character, destitute of trees, and on the hills are barren.

The valley soils are better adapted to farming purposes. There is a belt of 8 or 9 miles wide, in the western portion of the foothills region, in which the soil is thin, and apparently devoid of eruptive rocks. This belt in some places has an elevation of 1,000 feet above the plain.

The northeastern and eastern parts of the county are broken with ridges and hills between the creeks, and are well timbered with pine, cedar, and spruce. Turpentine and rosin are obtained from the pine forests.

It will be seen from the above that Butte County contains within her boundaries a variety of soils, to please every taste and suitable to a great range of products; from the stiff, strong adobe land which, when properly worked, has been proven to be the best and most lasting land for wheat, up to all grades of lightness and richness, to the comparatively barren, rocky soils of the higher foothills, which may yet prove to be the best adapted to the production of table wines of the highest character, to please an epicure's palate.

This variety of soils is a most fortunate circumstance for any country, and one that rightly appreciated and taken advantage of, will surely redound to the wealth and prosperity of that country. And Butte County is rapidly becoming alive to this varied capability of her soils, and her citizens are wisely acting accordingly. Like too many other sections of our agricultural regions, she was prone to put all her eggs in one basket; or, in other words, depended upon one great crop of wheat or barley, as the experience of the past year or the promise of the next, dictated. Experience is a stern teacher, and she has, by some sharp lessons, impressed upon the minds of the most thoughtful farmers, that mixed husbandry is much the safest policy, one year with another. It is true that great success has often followed upon the seeding of vast areas, in the cereals particularly, favorable years, only to be followed by a proportionate disaster when the elements were unpropitious, and carrying a large balance to the wrong side of the ledger. There has been a good deal of this kind of farming in Butte, but the time is in the near future when the large tracts held by the few will be cut up and sold to immigrants for small holdings, who will bring with them the methods of the Eastern States and of Europe, and prosperous small farms will thickly dot her plains and valleys, and school houses will everywhere be multiplied.

And in this connection, and to show the drift of things in Butte, we quote an entire article in the "Oroville Register." It covers pretty much the whole ground, and its suggestions and information are valuable and timely:

The time has come in this State when men must discard their old ways of trusting to luck, and thinking that money will come as easily as in the days of yore, whether they are all the time rustling for it or not.

We must adopt eastern ways and eastern methods in making money, and there is no surer way and no more certain and profitable way than that of taking hold of many small means now neglected.

Among these we may name the raising of poultry, and the producing of honey as a business. Our land owners who find growing wheat a losing business can save many a dollar by having large flocks of hens on a farm, by growing their own vegetables, and making their own butter. They have the land, and this land will be taxed, and it becomes a serious question with the owners what to do in order to pay running expenses, and not fall behind at the end of the year.

We must pay more attention to the small things. Among these is growing their own fruit, curing their own ham and bacon, putting up their own lard, and, as we have said, raising poultry and producing honey. Frugality and economy are new words in the California farmer's vocabulary, but they must come into current use.

Slipshod methods must be discarded, and the man who wants to pay his debts and have some money left at the end of the year, must be content to adopt and follow the same plans that made so many small farmers in the East and through the great Northwest well to do. We cannot begin a day too soon.

The time is fast coming when the stretches of red foothill land, now partially covered with manzanita, greasewood, scrub oak, and digger pine, and used as a pasture for cattle and sheep, will be put to more profitable use. Hundreds of acres are now being cleared and fenced, and sown to grass or grain, but this is merely the prelude to the grand improvements that are soon to follow. Thousands of peach, plum, fig, and prune trees will in a year or two be set out on this recent wild land. Vineyards and orange groves will speedily follow, and before the twentieth century shall have been ushered in, the foothills of Northern California will contain more beautiful homes, finer vineyards, more prolific orchards, and more profitable orange groves than the wildest enthusiast in the State now dreams of.

Why is so little attention paid to the growing of fine table and raisin grapes? The foothill land is well adapted to the grape, and this is a fruit that soon comes into bearing. There is no doubt that the growing of fine grapes, either for the table or for making raisins or wine, would be a profitable business all through the foothills. Our people who own land here ought to study what crops pay best, and then plant their land to such crops. In the course of a few years from now the owners of land here will regret that they did not long ago put their land to purposes that would bring better returns than raising hogs, sheep, and cattle.

A few days ago we heard a farmer saying that he had been offered a good price for a part of his land, and he was going to dispose of it, and with the proceeds pay off every dollar that he owed. He would still have a fair-sized farm left. We call that a sensible man, and believe that in five years' time he will be worth more money than if he had held all of his land, and paid interest on the money that he owes. One curse of this country is the big farms, and we are glad to see any of the big farms cut up into smaller ones.

Some few weeks ago a large land owner called upon us and stated that he wanted to sell his land, and that if we could send him a buyer at $20 an acre he would dispose of his place. He called again this week and said that a gentleman had lately been to see him about buying his land. "What did you ask him for it?" "Forty dollars an acre," was the reply. "But you told us a week ago that you only asked $20." "But you see, since then this orange boom has started in, and my land is first-rate for oranges, so I am going to hold it for $40 an acre."

We are assured by men who have tried it within the past three years that alfalfa will thrive well on any of our red hill lands where it is irrigated. If such is the case, then artesian wells would make the land very profitable, for there is no better paying crop in California than alfalfa. Who will be the first to make a move toward having an artesian well bored in this part of the county?

While putting out new fruit trees don't forget that the Adriatic fig, the true fig of commerce, will in a few years become one of the most profitable trees that can be set out. The dried fig put up in boxes brings from 14 to 20 cents a pound, and the trees bear heavily.

One writer says that Butte has a very large foothill section whose capabilities for horticulture are fast becoming appreciated. These foothill lands have of late years produced remarkable crops of fruit, and the coming years will see them peopled by communities of horticulturists enjoying abundant success. The country round about Oroville seems to be the natural home of the orange. Although orange culture has not been made a specialty in that section, there are a number of small orchards that have produced heavy crops of oranges that surpass those of the southern counties in size, beauty, and flavor. The fruit, moreover, ripens nearly a month earlier than that of Los Angeles. Lemons are also successfully grown, and all the hardier fruits reach perfection in these foothills. Outside the wheat growing district land is not as yet held at high figures, and any person of moderate means can readily secure a tract of land suitable for farming on a small scale and fruit growing. This foothill country is traversed by a large number of mining ditches, which will in the future be utilized for irrigation, thereby making productive lands otherwise lacking in fertility. Many of the immigrants that have come to California within the past two or three years have established themselves in Butte County, where they are laying the foundation for happy homes and lives of prosperity.

The Northern Portion

Of the county abounds in pine forests, and the lumber trade of that section forms one of the leading industries of the county. Several large sawmills are required to meet the demands of the lumber trade, which gives employment to a large number of men.

During the past year the county has made a steady and satisfactory growth in all lines. In grain raising there has not been the increase that has marked other counties, but the increase has been noticeable. The area cut to hay is greater now than ever before, and has increased steadily for the past ten years.

The lumbering interests are booming in this part of the country, and the amount cut in the county cannot be short of 10,000,000 feet. A large amount of lumber is shipped from this point, and during 1885 not less than 600 carloads have been sent to San Francisco and other points. A large share of this is sugar pine lumber.

The increase in fruit growing has been marked. A safe estimate would place the new land planted this year to vines, berries, and fruit at not less than 3,000 acres. Most of the increase has been in small orchards and in extending those already put out.

A good deal of attention has been paid this year to the cultivation of the orange and the lemon, and all through the foothills of this county there will be in time handsome groves of citrus fruit bearing trees.

The planting of nut bearing trees is attracting attention, and during the next year or two many nut trees will be planted.

We would estimate the number of orange trees now bearing in the county at about 1,500, with as many more to come into bearing during the next two years. Oroville alone has 700 bearing orange trees.

Stock raising has increased this year, and appears to attract more attention than it did some years ago. We estimate the live stock of the county as follows: 2,000 head of mules, 10,000 head of horses, 17,000 head of cattle, 25,000 head of hogs, and 100,000 head of sheep.

Mining has this season received a boom that will be largely felt during the year 1886. Hundreds of new mines were located and a large amount of prospecting done. Several paying mines were developed, and these, in addition to the number that have been worked for years past, will make a fine showing for Butte in the coming year. At present the attention of miners is directed principally to the opening of deep channel mines, as these, when found, are enormously rich. The well known Spring Valley Company, of Cherokee, employed more men during 1885 than during any previous year that the mine has been worked. The Big Bend tunnel, that is to lay dry the Feather River for 13 miles, is about completed, and other mining schemes are being pushed forward.

The county has had no building boom, yet a good many new buildings have been put up. Oroville has erected some 12 buildings, Moore Station about 15, Biggs 12, Gridley nearly 20, and Chico still more. All through the smaller towns and on the farms there have been a good many buildings put up, so that if we give the number at 180 for the county, it will not be an overestimate.

Butte has 78 school districts and maintains 98 schools, while her school census children number 4,083.

Butte has about 500 miles of mining ditches, 125 miles of telegraph lines, and 150 of telephone lines, of which 75 have been put up this year. The total amount of her tax-roll is $17,066,271, which is an increase since 1880 of $4,178,177.

It will be proper to say here that there is yet a good deal of government land in Butte County, but it is mostly in the foothills region. Of this character of lands the Immigration Association of California says, generally, that "it consists of flats, plateaux, and ravines, with rocky and steep places. It is well timbered, has an abundant rainfall north of Tuolumne County, and has a semi-tropical climate extending through the whole length. Every agricultural product that can be grown in the valleys can be grown with equal facility in the foothills, including the semi-tropical fruits, oranges, etc.; those grown here have been pronounced equal to the best Los Angeles. Ordinarily the land must be cleared of trees and brush. Throughout the whole region living streams are numerous. There are over 50 considerable tributaries to the Sacramento and San Joaquin Rivers, passing through this district, besides innumerable small streams. The soil is good and there is plenty of timber. On the higher mountains there is an abundance of timber suitable for lumber of all kinds.

Many of these lands are gently rolling hills, sometimes nearly level, with scattering trees. Butte has of these government lands about 150,000 acres.

The Principal Towns

In Butte are Chico, Oroville, Biggs, Gridley, Nord, Cherokee, Nelson, Dayton, and Durham. While Oroville is the county seat, Chico is the larger, its population being about 4,000. Both towns enjoy the benefits of railroad communication, Oroville being the northern terminus of the California Northern Railway, which runs between that place and Marysville, and Chico being located on the main line of the California and Oregon Railroad. These towns each have stage connections with the more remote parts of the county. As a rule the people of Butte are well to do, and their towns and villages are well provided with churches, schools, newspapers, and other evidences of thrift and progress. The 78 school districts in the county employ nearly 100 teachers, whose average salaries are from $70 to $80 per month. Abundant provision is made by the authorities for the proper support of the schools, and the people of Butte feel a just pride in their excellence.

Model Farming.

Prominent among the number of highly improved farms in Butte County is that of General John Bidwell, near the town of Chico. General Bidwell was one of the earliest white settlers in that section, and has always been a prominent figure in public affairs. His Butte County farm is one of the finest on the coast. It comprises several thousand acres, and has been brought to a high degree of perfection. It is a model farm in every department, both of agriculture and horticulture. Cereals, fruits of all kinds, table and raisin grapes, oranges, berries, etc., are grown in large quantities, and always command the best prices in the market. A flour mill is maintained on the farm, where the surplus product of the grain fields is manufactured into flour. General Bidwell's enterprise and perfect system of farming has done much towards attracting attention to the agricultural resources of Butte County.

Taxable Wealth in 1885.

Real estate and improvements	$15,472,901
Head of cattle	16,123
Head of goats	1,000
Head of hogs	19,647
Head of horses	8,000
Head of mules	1,297
Head of sheep	90,437
Acres in wheat	82,425
Acres in barley	9,393
Acres in oats	3,033
Acres in corn	1,250
Grapes sold for market (pounds)	322,000
Boxes of raisins made	2,210
Tons of grapes per acre	4

CALAVERAS.

Calaveras is one of the oldest settled counties in the State, and justly celebrated in the early days of its settlement for the fabulous yield of virgin gold from plain, gulch, bank, river, and deep channel diggings. Calaveras is centrally located, and is bounded by the following counties: On the north, by Alpine; on the east, by Tuolumne; on the south and southeast, by Stanislaus and San Joaquin Counties; and on the west, by Amador; being about 60 miles in length, with an average width of 30 miles, containing 11,000 square miles of territory. The salubrity of the climate, from the peculiar formation and location of the county, is remarkable and widely acknowledged, as attested by the large number of visitors to more prominent localities, for sanitary purposes, as well as curiosity and instruction, in visiting the many natural wonders of this county, principal among which are the world renowned Big Tree Groves, extensive cave, with its many charming chambers, and the wonderful Natural Bridge.

The Big Trees, known to every tourist, are a grove of about a hundred of the most gigantic trees on earth. "They are," to quote from an authority, "33 miles northeast of San Andreas, and are reached by stage from the Central Pacific Railroad at Galt, or from Milton, the terminus of the Stockton and Copperopolis Road. * * * These trees are indescribable by comparison or statement of dimensions, and can only be appreciated by observation. * * * At an elevation of 4,370 feet above the sea level, and within an area of 50 acres, are 103 large trees, 20 of which exceed 75 feet in circumference. This grove has been placed by Congress under the protection of the State of California. The Big Trees were discovered in June, 1850; and previous to this State protection, one was felled. To accomplish this, long, pump-boring augers were used, and the constant toil of 5 men for 25 days; but when thus completely severed, two and a half days' labor with various mechanical appliances were required to throw it from its broad base; and thus this monarch of the forest, which had crowned in glorious majesty the heights of the Sierras through all the ages of Christianity, before Solomon built his Temple, and even before David had raised the Kingdom of Judea to its zenith, was laid prostrate to the earth. Troy flourished and decayed whilst this tree was growing, and it was a giant of 400 years' growth when Carthage was founded. Its annular lines showed 3,000 years of life. * * * This grand tree was 302 feet in height and 96 feet in circumference at the ground. Upon the upper part of the prostrate trunk a house and double bowling alley have been constructed, and on the stump a dancing hall. Four sets of quadrilles can dance on it together, with musicians and spectators. The largest of the trees now standing is the Mother of the Forest, whose height is 321 feet, and circumference at the base 90 feet. Near by lies what was once the largest of the group, called the Father of the Forest, which, when standing, is estimated to have reached a height of 321 feet, and had a circumference of 110 feet at the base. Another prostrate is the Burnt Tree, which is hollow, and into which a person can ride on horseback for 60 feet. Hercules is 320 feet high and The Hermit 318."

An additional attraction to the visitor to this county, has recently been discovered in the mammoth cave, which has no rival, outside of Kentucky, in the world. Explorers continually find new wonders in its mysterious labyrinths, and expectation awaits, with much interest, further developments resulting from investigation.

The geological value of the fossils of the county is appreciated by the prominent scientific bodies throughout the world. Bones of the mastodon, and other extinct *genera*, have been found in various parts of the county, and it is confidently expected that further research will result in discoveries which, if they do not revolutionize, will at least materially change theories in geological science, which now meet with general acceptance.

This county has made decided advances during the past year. Notwithstanding the phenomenal dullness of trade, and the consequent depressing effect on all industries, the grand resources of this most favored county have asserted their reality and value.

The mineral wealth of the county is very great, in fact the entire county may justly be regarded as a bed of mineral deposits, gold predominating, the baser metals being abundant, and only awaiting the time of the advent of population, and consequently capital, to develop these now dormant resources. Copper has been extensively worked, but is now in a languishing condition; iron, inexhaustive, of high percentage, contiguous to limestone, timber, and water power; coal beds, undeveloped, are known to exist; also, cinnabar; marble, limestone, and granite, of the finest quality, in ledges of bold and magnificent proportions, course the country, interspersed with innumerable lodes of quartz, many of which carry gold, and some now worked are proving the best gold mines on the coast, all of which mark Calaveras County as one with a future of large and rich development of her mineral wealth. She has also a large timbered belt, which, of itself, for grandeur, extent, diversity, and magnificent proportions, has no parallel in the entire timbered belt of the western slope of the Sierras, and which, although yielding from 3,000,000 to 5,000,000 of lumber, and 2,000,000 of shingles annually, is comparatively untouched, and some day these vast forests of the choicest timber will yield a princely revenue.

The total value of real estate and improvements in the county liable to taxation in 1884, was $2,195,314.

Calaveras is not generally reckoned as one of the agricultural counties; and it is not, as compared with some others; and yet its agricultural products are of no mean proportions, for according to the statistics in the report of the State Board of Equalization, there was sown, in 1884, 27,000 acres to wheat, 9.000 acres to barley, and 11,000 acres to hay, which is certainly a good showing for what was long considered a purely mineral and timber region.

By reference to the Assessor's report for 1882, we find that Calaveras had 63,000 acres inclosed, and 51,000 acres was under cultivation. Evidently there is some very rich land in this county, for we learn from this same report that there are some 600 acres in corn, and the intelligent farmer knows what kind of land this means.

But another vast source of wealth for this county, in common with the other foothills region, will be from the cultivation of her fruits and grapes, for which a large portion of her domain is excellently suited. The attention of the thoughtful is already being turned in this direction, and a good beginning has been made. In 1883 there were 750 acres of vines planted in table grapes, and 620 acres for the vintage, making 1,370 acres in vineyards, all told. The time is not far distant when vineyards will dot all these regions, and from them we shall receive our choicest table wines; and to these will be added hundreds of acres of nuts and citrus fruits, which, as has been proven by experience, can be cultivated here most successfully.

There are in this county 250,000 acres of land owned by the Government and subject to preëmption, and some day these acres will be brilliant with the vivid green of the orange and the vine, and happy homes will cover the hillsides of old Calaveras.

Another great advantage which this county possesses is her excellent water supply and the facilities for irrigation afforded by about 525 miles of mining ditches, which are proving a mine of wealth when turned on orchards and vineyards.

The county is not as yet very thickly populated, there being about 8,000 inhabitants; but our crowding immigration will greatly increase this in a few years, for a great many will not be slow to appreciate the many advantages which this county offers to those seeking small homes.

The county seat of Calaveras is the substantial town of San Andreas, where the "Calaveras Citizen" and "Calaveras Prospect" are published. It is centrally located in the county, and reached from San Francisco via the Stockton and Copperopolis Division of the Central Pacific Railroad, and stage 22 miles from Milton. It depends mainly upon its lodes for support, yet fruit growing and stock raising are important factors in the nourishment imparted to her growth. The altitude is 1,600 feet. The other towns and precincts are Angels, Altaville, Bear Mountain, Black Hills, Brushville, Camanche, Copperopolis, Chili Gulch, Cave City, Calaveritas, Campo Seco, Chaparral, Douglas Flat, Eureka, Fourth Crossing, Fischer's, Jenny Lind, Mokelumne Hill, Murphy's, Mosquito Gulch, Milton, Negro Gulch, O'Byrne's Ferry, Pleasant Springs, Petersburgh, Polomo, Robinson's Ferry, Sheep Ranch, Spring Valley, Salt Spring Valley, Telegraph, Vallecito, Washington Ranch, and West Point.

COLUSA.

The vast agricultural wealth of Colusa County has become a matter of history in California. Situated as the county is, almost in the middle of the fertile valley of the Sacramento, it has become one of the first among the grain producing counties of the State. The county is bounded on the north by Tehama, on the south by Yolo, on the east by Butte and Sutter, and on the west by Lake and Mendocino. Its area embraces 2,300 square miles, or 1,472,000 acres. The western portion of the county encroaches upon the eastern slopes of the Coast Range, but in the valley proper there are about 1,000,000 acres of the richest alluvial soil. The population of the county is about 15,000, and the people are mostly farmers and stock-raisers, except, of course, the residents of the towns.

Extensive Farming.

Colusa has been noted for the immense grain "ranches," foremost among which is the celebrated Glenn farm. This great ranch of some 60,000 acres, bordering on the Sacramento River, was a principality in itself, capable of supporting 300 families, each with an improved farm of 200 acres. It was, however, the property of but one man, and consisted merely of a broad expanse of cultivated, but otherwise unimproved territory. Since the death of Dr. Glenn, a few years ago, something has been done toward the division of this vast tract into farms of more modest pretensions, and ultimately this work of reformation—for it is simply the reforming of a ruthless system of so called farming—will be completed. There are other grain ranches of 10,000 acres and upward in Colusa, which have, in the past, operated as a bar to the proper settlement of the county, but the tendency of the times is toward their abolishment, and the substitution of small farms, owned by private individuals.

Not only does the valley section of Colusa possess soil of surpassing fertility, but the foothills in the western portion of the county, and the small valleys with which they are studded, produce abundantly. There are some portions of Colusa in which irrigation is deemed necessary or desirable, and the subject has been one of deep interest to the people there for some years past.

Low Freights.

Colusa having the advantage of water transportation to San Francisco, the farmers profit by freight competition. The greater portion of the grain crop of Colusa is sent to market by steamers at the rate of $1 50 per ton. In the early fall the banks of the river in that county present an interesting sight, lined as they are for miles upon miles with huge piles of wheat in bags awaiting shipment to tide water.

The Chief Towns

Are Colusa (population about 2,000), Williams, Princeton, Jacinto, Willows, Germantown, Maxwell, Orland, Norman, Butte City, Arbuckle, besides several other villages and railway stations of minor importance.

Resources Awaiting Development.

Concerning the natural resources of Colusa County, and the causes that have operated against their development, Will S. Green, editor of the Colusa "Sun," has this to say:

> While Colusa has been for many years the richest county in the State, in proportion to population—about $1,200 to each inhabitant, and upward of $6,000 to each voter—the development of her resources has been less rapid than that of any other county so near to the present center of population. The reasons are obvious. Railroads are the great developing agencies of the country. Some years ago the California and Oregon road was built on the east side of the Sacramento, through Yuba, Butte, and Tehama Counties, and the California Pacific was built through Yolo and Sutter, thus leaving Colusa the only county in the Sacramento Valley without a railroad. People settled along the lines of these roads, and land became valuable. When land was selling for $25 an acre in gold in the adjoining County of Yolo, the same quality of land, with freight on produce just as cheap to tide water, was lying subject to entry at $1 25 per acre in greenbacks, when greenbacks were worth six bits on the dollar. The consequence was that Colusa was given up to stockmen, who wanted large ranges, and they entered the land as necessity compelled them to do so. Consequently it came to be held in large tracts. Finally the Northern Railway was built, and the attention of farmers called to the great fertility of the soil; but wheat growing on such soil was profitable, and the large land owners went

into that, so that the small farmer, with his varied productions, found no foothold. Fine orchard and vineyard land can be had cheaper in Colusa County than anywhere else with the same natural advantages. The people are only beginning to realize what a grand bonanza they have in the soil, climate, and the water.

Irrigation.

Several surveys have been made for irrigating canals within the past two or three years, by such public spirited citizens as N. D. Rideout, H. B. Julian, John Boggs, L. F. Moulton, W. S. Green, and others; and it was ascertained that for a total expenditure of less than $1,000,000 an area embracing 650 square miles of land could be thoroughly irrigated. The capitalists who had thought of investing their money in these enterprises were fully satisfied with the outlook, and determined on proceeding with the work. But they have encountered considerable opposition from quarters whence it was least expected, and therefore nothing has as yet been done in that direction. While irrigation is not a necessity in Colusa, it would certainly prove a most effective agent toward insuring bountiful crops in years of excessive or partial drought; and with the facilities at hand for a perfect system of irrigation, enterprises of this character will undoubtedly be inaugurated ere many years. Colusa is rich in natural resources; but she, like most counties in Northern California, must have population before they can be developed.

There are 235,000 acres of Government land in this county subject to entry.

In 1880 the population was 13,118, and this has not been materially increased since that time.

The assessed valuation of the county, in 1884, was: Real property, $16,326,475; personal property, $3,204,117; total, $19,530,592. In 1885: Real property, $17,523,750; personal property, $3,937,036; total, $21,560,786. Showing an increase of $2,030,194.

The assessed number of acres in 1885 was 1,133,448, being a slight increase over 1884.

Colusa County offers inducements to small farmers, and in most parts of the county good land can be had at moderate rates.

Taxable Property in 1885.

Real estate and improvements	$21,541 946
Head of cattle	7,380
Head of goats	5,678
Head of hogs	25,595
Head of horses and mules	10,856
Head of sheep	87,516
Acres in wheat	401.901
Acres in barley	38,417
Acres in vines	65
Pounds of grapes sold	20,000

CONTRA COSTA.

Contra Costa is a noteworthy county, and from her contiguity to the metropolis, and from her inherent advantages, is sure of a happy and prosperous future. The county is bounded on the north by San Joaquin River, Suisun Bay, Straits of Carquinez, and San Pablo Bay; east by San Joaquin County; south by Alameda County; west by Alameda County and San Francisco Bay. It will thus be observed that her geographical position is a most desirable one, being about midway of the coast line of the State, fronting the Golden Gate, and with a water frontage of 70 miles on the western and northern border. The county was organized in 1850. It contains 750 square miles of territory, or 444,491 acres, of which about 200,000 acres are cultivated, the remainder being waste and grazing land. Across the county, extending in a southeasterly and northwesterly direction, parallel with the coast, the second great and distinct range of mountains forms a natural dividing line between the eastern and western sections. The distinguishing feature of this range is Mount Diablo, standing out boldly 3,896 feet in height, towering above all the peaks, and being very near the geographical center of the county. Its prominence caused it to be selected by the Government as the initial point of base and meridian lines in the survey for nearly two thirds of the State area. Two wagon roads of easy grade lead to its summit, visited annually by thousands of tourists. The panoramic view is grand and sweeping; villages, towns, cities, bays, rivers, and the blue waters of the Pacific are seen for a distance of 100 miles; the streets of San Francisco, with the hurrying to and fro of its ceaseless throng, are plainly visible on a clear day, while to the north and east are seen the quiet valley homes of the prosperous farmers.

As in most counties of our State, so here one may find a diversity in climate. Generally speaking, it may be regarded as a happy medium between the chilling fogs of San Francisco and the enervating heat of the interior valleys. The afternoon westerly trade winds, blowing fresh from the ocean, are tempered by the warmer inland air currents, rendering the climate delightful, subject neither to the extremes of heat or cold. In summer the mercury ranges from 70° to 90°; in winter, from 40° to 50°, with a few exceptional warmer or colder days.

The central valley of the county is about 15 miles in length and 6 miles in width, extending from Suisun Bay to the Diablo foothills. The various names of Pacheco, Ygnacio, Diablo, and Walnut Creek are applied to this fertile section, which yields bountifully of cereals and fruits.

The soil is rich, and farmers rarely fail to fill their granaries. The little Valley of San Ramon, extending from Walnut Creek to the Alameda line, is about 10 miles long and from 1 to 2 miles wide. It contains some of the pleasantest homes and wealthiest farmers in the county. Among the hills in the western part of the county are San Pablo, Pinole, Briones, Rodeo, Tajlar, and Alhambra Valleys. The farming lands in the eastern section of the county extend from Bay Point, a spur of Diablo, east, and between the foothills and San Joaquin River to the county line, being 23 miles in length by from 3 to 6 in width, and embracing about 60,000 acres of arable land. In this tract are the well known Los Medanos and Los Meganos Spanish grants. This land is a rich alluvial soil, and produces large crops of wheat and barley. To the northward, and between the upland and San Joaquin River, are some 50,000 acres of tule land. This land is marvelously productive, the soil is practically inexhaustible, and when made secure from the effects of floods and freshets, by substantial levees, will become the most valuable farming section in the county.

The educational and religious principles will compare favorably with any county in the State. There are 38 school districts, in each of which a public school is maintained at least 8 months during the year, and in most of the larger towns 10 months. From the early organization of the county its public schools have been fostered and zealously cared for. Many of the school buildings are handsome, commodious structures, supplied with all the conveniences of modern improvements and tastefully arranged grounds. Opportunities for religious instruction are not wanting, for the different denominations are well represented, churches are numerous and well supplied and supported. The principal towns are Danville, Alamo, Walnut Creek, Lafayette, Pacheco, San Pablo, Martinez, Concord, Nortonville, and Somerville.

Contra Costa County has taken no backward step during the past year. Although the transactions in real estate were considerably less than in 1884, the number of new settlers here has been insignificant. Farms that were subdivided last year have been selling off rapidly to newcomers. Many new vineyards and orchards have been planted, and the grape, wine, and fruit output is yearly increasing. A movement for starting a fruit cannery at Martinez, on the coöperative plan, bids fair to be successful. Several of our prominent citizens are becoming interested in the scheme, and it is probable that before another season the cannery will be in operation. The grape and fruit exhibits at the Southern Exposition from this county attracted favorable notice, and Dr. Strentzel's method of shipment for long distances was heartily approved. No statistics are obtainable showing the acreage in fruit trees in this county, but the following is a comparatively accurate showing of acreage in vines: One year old, 1,000 acres; two years old, 2,200 acres; three years old, 1,000 acres; five years old and upward, 250 acres; for wine, 3,000 acres. Total acreage in vines, 7,450 acres.

The assessed value of all property in the county last year was $13,400,907. This year the assessment valuation is as follows: Real estate, $11,092,259; personal property, $3,610,087; railroad property assessed by the State Board of Equalization, $1,074,397. Total assessment, $15,776,743. The tax rate in this county is but $1 20 on the $100. Only two counties in the State have an equal rate, and only two counties a less rate.

The commercial and manufacturing interests of the county are rapidly advancing each year. The enormous warehouses at Port Costa and other points along the Straits of Carquinez, receive the bulk of the grain that is raised in the San Joaquin and Sacramento Valleys, and in the counties north and east of the bay. Starr's immense flouring mills at Crockett, not yet completed, will not have a superior in size and capacity in the world. Selby's smelting works, below Vallejo Junction, were completed the past summer. They employ nearly 130 men, and a progressive town is springing up in the vicinity. Heald's foundry has acquired a reputation for the excellence of the pumps and the mine machinery it turns out.

A franchise has been secured by prominent wine men of San Francisco at a point along the straits with a view of erecting immense wine cellars. It is intended by these parties to make the Contra Costa shore of the straits, at the point mentioned, a site for a depot for all the wine manufactured in Central California.

The coal output of the county is about 3,000 tons per month, considerably less than formerly. About 125 men are engaged in this industry. The building improvements in the county during the year have been noticeable, especially in Martinez, the county seat, where more buildings have been erected since last winter than during any five years previous. It is the general feeling that the coming year will be the most prosperous we have yet had. The population of the county is about 15,000, as against 12,500 for 1880.

DEL NORTE.

This county occupies the extreme northwest corner of the State. It embraces 66,562 acres of land, of which about two thirds is mountainous and one third valley land. The population, as near as can be estimated, is 2,800, and had a voting population at the election of 1884 of 622. Crescent City, the county seat, is 280 miles from San Francisco, and the only means of travel from the metropolis is by steamers and sailing vessels, or by a circuitous route over a mountainous road. The taxable property of the county, according to the Assessor's book, is $1,182,205.

Although placer mining has been carried on in different portions of the county since before its organization, and a large amount of gold taken out, this branch of industry is, with a few exceptions, now confined to the eastern portion of the county, and lumbering and the dairy business are now considered the most prominent industries.

During the past year the Elk River mill at Crescent City has shipped 5,300,000 feet of lumber, and the Lake Earl mill, situated about three miles from Crescent City, about 4,000,000, all of which has found a ready market in San Francisco. This is not a fair average, as the mills here have not run regularly during the past season, and a large mill at the mouth of Smith River has been idle nearly the whole season.

The farms in the valleys have nearly all been turned into dairies, the owners finding that interest much more profitable than raising grain. There have been shipped over the wharf at Crescent City this season 384,710 pounds of butter. The butter made in this county is a very superior article, commanding the highest market price. The shipment this year was less than previous years, on account of dry weather making the pasturage poor.

Salmon fishing is carried on at the mouth of Smith River, and there is a fine opening for a fishery at the mouth of the Klamath River, but, on account of its being on an Indian reservation, white people are not allowed to fish, except for their own consumption.

Prospecting for quartz ledges has been going on for years, and several found, but none as yet have been made to yield a dividend. Coal has also been found, but no well defined bed struck as yet.

There has also been shipped quite a large quantity of wool, hides, etc., of which at this time we have no figures at our command.

Smith River is the second town of importance in the county. It is situated about 14 miles from Crescent City, and is surrounded by large and fine dairy ranches and dense forests of redwood, fir, and spruce. Happy Camp is situated in the extreme eastern part of the county, and is what might be termed a mining camp, although some good farms are to be found in the valley along the Klamath River.

EL DORADO.

No county in the State, possibly no section of equal size in the Union, has a history so full of thrilling interest as that of El Dorado. It was here that gold was discovered, the news of which spread with rapidity throughout the civilized world, and caused the argonaut to wend his way across the trackless prairies, over the rugged mountains, to the golden shores of the Pacific. With an area in extent almost equal to that of Rhode Island, land as arable as that along the Nile, scenery which in point of grandeur excels that of sunny Italy, and crystal streams with beds of gold, it is no wonder that the pioneer thought he had entered the elysian fields of the Utopian country, and in the exuberance of his joy named the newly found paradise "El Dorado." The history of El Dorado County, from the discovery of gold by the lamented Marshall at Coloma, while employed as a laborer at Sutter's Mill, would fill an immense volume, so rich in point of interest, so diversified as to characteristics of her cosmopolitan people, so thrilling with episodes of pioneer life, so apparently fabulous as to her yield of golden treasures, that the greatest work of fiction would scarcely equal or compare in interest. In less than one year after Marshall's discovery over 40,000 gold seekers were within the borders of El Dorado County, and for several years that followed it was the banner county of the State. The placer mines, owing to the great number engaged in that industry, were worked out at an earlier date than those of adjoining counties, but her deep gravel deposits and rich quartz lodes continue to yield golden treasures, and from the present appearances promise to do so for ages to come. The western boundary of this county, a few miles east of the town of Folsom, is 110 miles northeast of San Francisco and 30 miles east of the Capital City. It is bounded on the north by Placer County, from which it is divided by the Middle Fork of the American River. Its eastern boundary is the State of Nevada and Alpine County. On the south it is bounded by Amador County and on the west by Sacramento.

The first county seat was the historic town of Coloma. In after years Hangtown, or, as it since has been named, Placerville, became the county seat, and has since so remained. Placerville has an altitude of 1,900 feet, is one of the most prosperous, populous, and the wealthiest towns of the interior of the State. At one time, in the pioneer days of California, Hangtown was the metropolis of the State, the home of the most eminent jurists on the coast, and was considered the Athens of California. The euphonious sobriquet of "Hangtown" was given, as the name would indicate, by a "neck-tie party" which took place at its first settlement. In those days life and property were held more sacred than at present, and he who dared to violate the great "unwritten law" was disposed of after a hearing by a jury of his peers, and no jail was required to take care of the individual who was convicted by such a tribunal. "A miners' meeting," as all such Courts were called, was conducted in a manner which exhibited a spirit of fairness and a disposition of justice that, in comparison, our present Courts and the law's delay seem a burlesque on the blind goddess. Early in 1849 such a Court assembled at the little mining camp, and the culprit, after a fair and impartial hearing, was hanged from a large limb of a white oak tree that stood near the present site of the plaza. Hence its name. It can be said truthfully of the early settlers that, notwithstanding they were in a measure adventurers whose only aim was the acquisition of gold, still a large majority of them were young men fresh from school, of respectable families, men of honor and intellect, and not a few of them became, in after years, leaders in the body politic not only of the State but of the nation. It was in El Dorado County where the famous Joaquin Murietta and his band of outlaws committed the major portion of their memorable and murderous outrages, a truthful statement of which would read like the veriest of fiction. Placerville is situated in latitude 38 degrees 43 minutes north, and longitude 120 degrees 47 minutes west. It occupies a long, narrow ravine, through which flows Hangtown Creek, between two ranges of hills that rise on either side of the city several hundred feet. A view of this town with its long, winding main street, from any of the adjacent hilltops, is picturesque in the extreme. The main portion of the town, which is divided into what is called upper and lower Placerville, is upwards of 2½ miles in length.

The business portion contains many handsome fire-proof brick blocks, and the residence portion many handsome residences, surrounded with beautiful lawns, grown to fruit, flowers, and shade trees, that here thrive in luxuriance. Its church edifices, four in number, are fine structures that will compare favorably in size, stability, and architectural beauty with any city in the State outside of San Francisco. Her schools, both public and private, are the pride of her citizens, and some of the private seminaries have a State reputation, and have pupils from all over the coast, attracted thither on account of their superiority as institutions of learning as well as the salubrity and healthfulness of her climate. The wholesale establishments are not surpassed by those of any interior town of the State. Placerville boasts of three weekly papers—the "Mountain Democrat," one of the oldest journals on the coast, the "El Dorado Republican," and the "Observer." These papers are all conducted by young journalists of ability, who know and understand the requirements of their section, and to their efforts is largely due the present prosperity of the county. The population of Placerville is about 3,000, and the people, as a class, are industrious, thrifty, and, as a general thing, well to do.

The next town in size and importance is Georgetown, 16 miles north of the county seat. It is situated on the summit of the range of hills that act as the watershed between the Middle and South Forks of the American River. In fact, the eaves of the houses on the west side of the main street in several instances are directly upon the summit of the watershed, the rain falling upon one side flowing south, the other north. The town is regularly laid out in blocks, has wide, well shaded streets, an excellent system of waterworks, good churches and school building, a commodious brick town hall and theater, and a population of intelligent and prosperous people. It is the center of trade for a large area of excellent farming country. Her mines—placer, quartz, and gravel—are prosecuted with great profit, and her lumbering interests are inexhaustible. The altitude of Georgetown is 2,700 feet, and the population about 1,000. The town also has an excellent paper, the Georgetown "Gazette," which is issued every Friday by H. W. Hurlbert. Greenwood, Coloma, El Dorado, Grizzly Flat, Latrobe, and Shingle Springs are all towns of considerable size, and each is a trade center of a considerable section of country.

No county in the State presents a greater diversity in soil, climate, and productions than El Dorado. In less than a day's travel you can go from the orange and persimmon groves, which grow luxuriant in its southern, western, and middle portions, to the snow that enwraps the summits of the Sierras with its eternal covering of white. The altitude of the county ranges all the way from 500 feet to 12,000. The "foothill belt," which extends from a point 10 miles east of Placerville to the western boundary of the county, comprises an area of about 30 by 40 miles, and in it is embraced nearly all of the best agricultural lands. Fruit trees and vineyards flourish, and all the cereals yield abundant harvests.

The fruit interest of the county is in the lead, has proven to be the most profitable, and makes the largest returns for the least outlay. Peaches, prunes, apricots, plums, pears, apples, berries of all kinds, and grapes mature to perfection, and have a delicacy of flavor that is not equaled anywhere, save in the neighborhood of Newcastle, Placer County, which has the same character of soil and climate. Apples and pears thrive in their greatest perfection on the Georgetown divide, even at an altitude of 3,500 feet.

East of this agricultural belt, extending the entire length of the county, north and south, and to its eastern boundary, are some of the finest timber lands upon the coast. On the Georgetown divide, which lies between the South and Middle Forks of the American River, these forests, many miles in extent, stand in their original primeval pride, having never heard the sound of the woodman's ax. Here are found majestic pine 300 feet high and 12 feet in diameter, standing as thick upon the ground as trees in an orange grove. The entire county is well timbered, the lower foothills with both white and black oak, and a little further up with oak, yellow and white pine. The whole country is liberally and well supplied with living springs, while the hundreds of ravines and cañons that head in the Sierras are constantly fed by the melting snows. In no portion of the county is there lack of water or fuel, as both can be found in great abundance on every hand.

Most of the land in the western portion is rolling, yet thousands of acres may be found in bodies as level as the plains on the Platte, and these lands, for hay, grain, or fruit, are unsurpassed by any uplands of any State in the Union. In this section floods are never known, cyclones never heard of, earthquakes never experienced, and a failure of crops something that has never been chronicled by the honest historian. No matter what the season, with proper care in preparing the soil, seeding, and cultivation, a good crop is sure to follow. This, to a great extent, is owing to the fact that the system of irrigating canals in this county, which cost the early miners millions of dollars, is the most complete in the State, and with irrigation the soil can be made to produce crops and growths astonishing to behold. Those canals, since the decadence of placer mining, have fallen into the hands of the sturdy agriculturist, and now each farm has its own water right. Farming in El Dorado County is still in its infancy, and there is a home demand for most of the products, save cheese, fruit, wool, and wine. There is now a steady increase in her farm products from year to year, and a certainty that in the near future a large surplus will be credited to her enterprising farmers.

The dairy interest is a large one, and, in the main, very profitable. Those engaged in this business are possessed of two ranges—one in the lower foothills, for winter use, and another upon the Sierras, at an altitude of from 6,000 to 8,000 feet, where stock is driven after the feed dries up in the spring on the lower range. The summer ranges are usually covered with snow until April and May, and when this disappears the most luxuriant grasses and flowers spring forth and keep green throughout the summer. It is at the summer range where the butter and cheese, for which this county is justly famous, is made. With judicious management and the growing of an alfalfa field, small dairies in the foothills are operated with great profit without removing the stock to a summer range. Those who are engaged in dairying in El Dorado County say that it can be carried on with less expense and greater profit than in any of the States in the Mississippi Valley.

The middle section of the county, say midway between the snow-line and the western border, seems to be especially adapted to fruit and wine growing, and both are produced in great abundance and variety. The fruit produced, especially that in the neighborhood of Coloma, Lotus, and Granite Hill, is acknowledged to be equal to that produced in any other part of the State, and commands the best prices in all the markets of the coast. The display of fruit at the last county fair, held in Placerville, was a wonder to behold, and perhaps was never excelled by a similar exhibition anywhere. It was the pride of all the residents of the county and the wonder and admiration of strangers. Fruit growing in the foothills of El Dorado is a business that it seems impossible to overdo, especially where choice fruits are made a specialty, as there really is no limit to the demand for it, either in a green, dried, or preserved state. The ruggedness of some of the country in the upper portion of the fruit belt, and where, also, all kinds of cereals and root crops are grown with great profit, must look quite uninviting to a man just from the Western prairies, but there is very little of it that cannot be made more productive, acre for acre, than any land in the States of Illinois or Iowa, and can be converted into pleasant, profitable, and beautiful homes by the industrious agriculturist.

During the month of August, 1885, 600 tons of cling peaches and Bartlett pears were shipped from Shingle Springs, while a few years ago the county shipped no fruit at all in August. The books of the railroad company will show that if the same rate of increase noticeable during the past 4 years is continued for 6 years it will require 10 cars daily to move the Bartlett pears and cling peaches from Shingle Springs, to say nothing of other fruits, both green and dry. The fruit growers of Coloma, the principal fruit section of this county, have organized for direct shipments East, their experience in this line the past year having been more than satisfactory.

In the vicinity of Placerville and Georgetown mining is still an important industry, and annually hundreds of thousands of dollars are taken from quartz, drift, gravel, and seam mines. Placer mining and mining by the hydraulic process are industries of the past, and the waters of the principal creeks, canoñs, and ravines, once running with polluted waters, are again returning to their crystalline purity, and a few years hence all the evil resulting from that class of mining will be obliterated.

Undoubtedly this is one of the most inviting fields for the industrious, frugal emigrant, with moderate means, to be found on the Pacific Coast, and many have within the past year located there. Land is yet cheap, though annually increasing in price, and there is much that may yet be secured by preëmption and homestead; the climate is healthy, and a home in this county is as desirable as in the most favored land on earth. Partly improved lands, in localities easy of access and near a public school, can be procured for from $6 to $12 per acre, and unimproved lands range from $1 25 to $5 per acre.

There is in this county about 365,000 acres of government land.

The Sacramento and Placerville railroad now runs to Shingle Springs—a point ten miles west of Placerville—and will be continued to Placerville and the lumbering belt of timber at no distant day. A narrow gauge road is talked of from Rocklin over the Georgetown divide into the sugar pine belt, which will open up an excellent fruit and grain belt, making shipping facilities cheap and much more complete than at present. During the mining days, when the population was dense, and money plenty, elegant school houses were built in every district in the county, and in that respect, El Dorado will compare favorably with any county in the State. Placerville and Georgetown both have graded schools, under the supervision of an able corps of experienced educators.

Diversified Products.

Among the products of this county are lime, marble, copper, and iron. The lime quarries are the most valuable in the State, and have been successfully and profitably worked since 1853. They are located in what is known as Cave Valley, on the Georgetown Divide, and are of unlimited extent. The building of the narrow gauge road spoken of would make these quarries worth hundreds of thousands of dollars. The marble quarries are at Indian Diggings, in the northeastern portion of the county. Marble from these work into beautiful monuments, and finish with a polish and beauty equal to the finest Italian. They, however, are too distant from rail communication at present to be worked with much profit. The slate quarries near Placerville are the finest in the State, and some day will be worked at great profit.

Taxable Wealth in 1885.

Real estate and improvements	$3,044,195
Personal property	943,470
Head of cattle	11,089
Head of goats	13,235
Head of hogs	3,224
Head of horses and mules	3,150
Head of sheep	20,000
Acres in wheat	6,060
Acres in barley	3,994
Acres in oats	1,706
Acres in vines	1,444
Gallons of wine made	103,310
Boxes of raisins made	590
Grapes sold for market (pounds)	1,942,410

FRESNO.

Fresno was organized in 1856, and is one of the largest counties of California, being about 150 miles long, and 65 miles wide, and containing 8,000 square miles, and a population of about 18,000, it having greatly increased within the last few years.

It is bounded by San Benito, Monterey, Mono, Inyo, Tulare, Merced, and Mariposa Counties. It is one of the three large counties that embrace the upper portion of the San Joaquin plains, reaches from the Sierra Mountains westward across the plains to the summit of the Coast Range, the elevations on each side being, respectively, above 10,000 feet on the east and about 3,000 feet on the west above the plains. The plains extend westward to the foot of the mountains on the extreme border of the county, and are separated from the Sierra on the east by a broad region of foothills. The lowest portion of the county is in the central part of the plains from southeast to northwest, and embraces a belt of tule lands, marshes, and sloughs, extending from the border of Tulare County, on the southeast, to the point where the San Joaquin River makes its northward bend, and thence becomes the central feature of the valley. This river is the largest stream in the county. It rises among the mountains and foothills of the east, and flows in a westward course to the middle of the plains, thence turns northwestward toward the Sacramento Valley, and has along its immediate border a timber growth of cottonwood, sycamore, willow, and large oaks. King's River, emerging from the cañons about 40 miles eastward from Fresno, flows in an irregular course southwestward, and traverses a region of undulating plains, until to the northward of Tulare Lake it enters the Mussel Slough region. Ordinarily the waters of King's River, not diverted by the numerous irrigation ditches, enter Tulare Lake, but in the time of high water they pass partially through Fresno Slough into the San Joaquin River. A number of creeks, rising among the foothills on either side of the valley, flow out upon the plains, but disappear before reaching the river. Numerous sloughs also occur. The eastern part of the county is extremely rugged, the western face of the Sierra Nevada Mountains, as well as the higher foothills, being cut by tremendous chasms, through which flow King's, Fresno, and San Joaquin Rivers and their tributaries. Some of the highest peaks rise to an altitude of more than 14,000 feet. An abundance of timber is found on the western slope of this mountain region, two large bodies of redwood being reported on the northeast and southeast. At the head of Fresno River there is a heavy growth of sugar and yellow pines, fir, big trees, and white cedar, with white ash in other places. The mountains of the west are particularly timbered with oak and scrub pine.

Professor Hilgard, in his "Agricultural Features of California," in speaking further of the peculiarities of the county, says:

> The foothills are rolling and broken in a belt 20 or 30 miles in width, covered with scattered oaks, and are interspersed with high and prominent peaks and ridges. The narrow valleys of the streams are alone suitable for cultivation. The plains possess a variety of lands; the greater portion, however, is a sandy loam, with no timber growth, and requires irrigation to be productive. On the western side of the river the plain slopes gradually from the Coast Range to the slough, and much of its land, even with irrigation, is said to be too poor and sandy for farming purposes. Along Fresno Slough, for several miles in extent, there is much alkali land. Much of the valley land is of an ashen character in color. The plains, with a whitish calcareous loam soil, extend eastward from the river to the railroad, beyond which the surface of the country raises a few feet to a slightly undulating plateau, reaching to the foothills. This plateau is destitute of trees, and is traversed by low, sandy ridges, which lie between the creeks, and from 15 to 20 feet above the level tracts adjoining the streams, or what may properly be called the general level of the plateau. These level lands have a brownish or reddish sandy loam soil, produced by the more or less admixture of the red foothill clays, and nearer the streams it is stiff enough to be locally designated as adobe. The ridges in the vicinity of King's River contain much white quartz gravel. The plateau region reaches from the San Joaquin River, near the railroad crossing, southward to one mile southwest of Fresno, and thence east to King's River. On the west of the San Joaquin River the plains reach 20 miles, to the foothills of the Coast Range, which forms a belt, about 10 miles wide, of low hills, covered only with grass. Thence to the summit of the hills is more abrupt, covered with scrubby oak, and in many places with a dense growth of chaparral. From the great bend of the San Joaquin River two canals have been constructed, the Chowchilla and the San Joaquin and King's River. The Chowchilla has a length of about 30 miles, and lies on the east of the river, crossing, in its course northward, Cottonwood and Berenda Sloughs, and the Fresno, Mariposa, and Chowchilla Creeks. Its capacity may be taken at from 200 to 250 cubic feet per second.
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> The San Joaquin and King's River Canal, lying on the west side of the river, reaches to Orostimba Creek, a distance of 67 miles, being longer than that of any other irrigating canal in the State. It commands an area of about 283,000 acres, which includes all the lands lying between it and the river, 130,000 acres of which are low, and naturally subject to overflow in seasons of ordinary flood. Its capacity is about 600 cubic feet per second.
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> Another small canal from the Fresno River, on the south side, is used upon land within 9 miles of the headgates. Don Palos and Temple Sloughs have also been converted into canals by deepening and enlarging their channels. In the southern part of this county there are a number of canals and ditches taking water from the Fresno River. The King's River and Fresno Canal, from near the foothills, has a length of 22 miles, and supplies water to the scattered farms on the high plains north and east of the town of Fresno. The Fresno Canal and Irrigation Company's canal takes water a mile below the head of the last canal, and conducts it to the immediate neighborhood of the town of Fresno. Its total length, with branches, is 63 miles. The Centreville and Kingsbury Canal, 26 miles long, conducts water to Kingsbury. Besides, there are several other smaller ditches and canals, reaching to different parts of this county.

From an undoubted authority we take further statistics concerning Fresno lands, which were carefully compiled:

> The country around Minturn Station (elevation 240 feet) is rather rolling, with compact sandy loam, hog-wallow soils, apparently alkali in character. Near Chowchilla Creek there are a few scattering oak and cottonwood trees, but otherwise the vegetation embraces chiefly clover, alfilerilla, salt grass, etc; thence to Berenda and Madera Stations the sandy loam, hog-wallow lands continue from 1 to 4 feet deep, containing more or less alkali, and underlaid by hardpan at from 22 to 48 inches. There is no natural timber growth, and the lands are chiefly devoted to pasturage. Water for ordinary purposes is obtained from wells at a depth of from 8 to 20 feet, while for irrigating purposes it is brought by the Fresno Canal to Madera Station, where wheat is raised and grapevines have been planted quite extensively. At Borden Station (elevation 310 feet) the country is level, and has a coarse, sandy soil, some 10 feet deep to hardpan. There is here no natural timber, and the vegetation embraces alfilerilla and clover. Wheat is the chief crop, and yields about 20 bushels per acre. Water for irrigating purposes is brought by the Fresno Canal. On the south of the San Joaquin River the hog-wallow lands again appear, the soil being a reddish loam, with a deeper colored subsoil at 12 inches. Alfilerilla predominates, though there is considerable pepper grass. Sheep raising is the chief pursuit. Around Fresno (elevation 290 feet) the country is generally level, with some hog-wallow places; the soil is a dark, sandy loam, with no timber growth. The crops comprise wheat, barley, and alfalfa, the yield being about 25 bushels of the former per acre. Vineyards are being cultivated extensively, but entirely with irrigation, the water coming from King's River. There are five colonies in the vicinity of Fresno: Washington Colony, located some 4 miles west, containing 5 sections or 3,200 acres; Central Colony, 2½ miles west, containing 6 sections;

Church or Temperance Colony, 4 miles northeast, containing 2 sections; the Scandinavian Colony, 3 miles north, containing 3 sections; and the Nevada Colony, 4 miles northeast, containing 3 sections.

All of the above are divided into 20-acre lots, and the lands are subject to irrigation, the chief crops being grapes, fruits, and vegetables. Fowler Station (elevation 310 feet) is situated in a level plain with white, silty soils, and without timber growth. Hardpan is found in spots at all depths, from the surface to 10 feet.

There is comparatively little farming done in this section, or until near Kingsburg, toward which place the country becomes more rolling, the soil also changing to a gray sandy loam some 4 feet in depth. The only timber growth is on King's River, and embraces oak, willow, cottonwood, sycamore, ash, and elder. In order that all whose attention has been turned toward this great county may be as fully posted as possible, we quote entire a letter written by the editor of the San Francisco "Argonaut" in 1884:

A hasty trip to Fresno has confirmed the writer's opinion, formed and expressed four years ago, concerning this part of our State. Every time we pass through the great Valley of the San Joaquin, we note the constant development of that region; new fences inclosing a larger breadth of land, an increased area of cultivation; new houses where there were none; better and larger houses where they were cabins; orchards and vineyards newly planted; ditches bringing water to new places; new colonies just planted, and older ones extending; hamlets, where a year ago there were but broad wheat fields; flourishing villages which we last recollect as hamlets; thrift, progress, prosperity, the population rapidly increasing; wealth, comfort, civilization growing on every side.

As we write, our senses grow alive to the recollection of such miles of brilliant wild flowers, such hundreds of square miles of wheat fields, such gorgeous views of breezy plains, clothed with grass and grain, over which the sunlight played, such glimpses of bay and river, and distant snow-clad mountain tops, fruit trees in their blossom, and alfalfa and alfilerilla in their bloom, that we are quite certain that we have seen one of the most promising parts of our altogether prosperous State. The future progress of this valley, and the assurance that it will outstrip other localities in wealth and population, is because it has not been cursed with Spanish grants and grasping, land hungry, greedy speculators, and because it is divided into small farms, colonies with 20-acre and 40-acre holdings, upon every one of which is an industrious working family. The soil is owned by the man who tills it; they are nearly all Americans; and there is no other spot in California where the signs of future prosperity are more promising. We need not say *future* prosperity, for to-day the town of Fresno and its vicinity are more prosperous than any other place in California, and we attribute it largely to the fact of small farms and small farming. Four years ago, in company with Bernard Marks we visited the Central Colony, planted by him. At that time we saw more than half an hundred families of ordinary size living upon 20-acre farms—industrious, poor, working families who had no other source of income than that which came from the soil. We visited again the same homes, occupied by the same people, saw better houses, larger fruit trees, older vines, more stock, and more evidences of comfort. We saw demonstrated the fact that an industrious family can live luxuriously off their own labor and the proceeds of 20 acres of irrigated land. We saw thousands of new homes in process of establishment upon 20, 40, and 100 acres.

The splendid farms of Barton, Eisen, Eggers, and one or two others belonging to incorporated companies, have an entire section of land, 640 acres, but the rule is less than 100 acres. The evidences of prosperity and comfort are upon every side. The town, with now over 3,000 inhabitants, is growing rapidly, and rapidly increasing in population; not a house vacant, not a laborer unemployed, not a grumble of discontent heard from any quarter. It is the busiest and most cheerful community which we have encountered anywhere. The land is a marvel of fertility. Fruit and grapes are the principal productions for sale. It is almost a miracle, the rapid growth and quick bearing of fruit trees and vines. Water goes with the land; both are purchased together. The health of the locality is good. It is demonstrated that malarial fevers are not serious or lasting. A little care in this direction avoids any danger of malaria. The opportunity for poor people who are willing to work is greater than in any other section of the State. In the adjacent foothills there is public land open to location. Land can also be purchased upon reasonable terms at fair prices. We do not know of any place where a home can be more easily obtained than in this part of San Joaquin Valley, nor one which, in the future, is likely to be more profitable and more enjoyable. Since our last visit the number of colonies has largely increased. Washington, Fresno, Temperance, Scandinavian, and other colonies have been established, all of which are doing well. In these colonies there is no community of property; they are simply the association of poor people to aggregate their capital for the purchase of land in larger tracts, then subdividing and distributing at the bedrock price, with long terms for payment. Every sod which is turned, and every tree, and vine, and alfalfa seed which is planted, so increases the value of the property sold as to increase its value as security for the unpaid mortgage. Every year demonstrates the fact that less water is required for irrigation. Very little water is needed for fruit trees or vines after the first year. Our advice to a large number of our San Francisco "genteel" folk—that large and pitiable class who are holding on to the ragged edge of "genteel society" by their eyelids, striving to keep up appearances—living in houses of extravagant rent, wearing clothing they cannot afford, in order to look respectable, and doing things they ought not to do, in order to make both ends meet—is to go to Fresno, and buy 20 acres of raisin land. Sell the piano, the watch, the house ornaments, the jewelry; sell everything not indispensable; then take the kitchen and common furniture, take a second class passage on the railroad, and go to Fresno and build a cabin. Eight hundred dollars will purchase 20 acres of land; $250 will build a comfortable cabin for a family of six persons; $1,500 is ample capital to get a new and independent start in life. There are many places in California where this can be done as well as in Fresno. Every church society should help its honest poor in this direction. Every rich man should help his poor relations to become independent. It is a splendid way for generous people to help those who are willing to help themselves. We know a multitude of people, despondent men, widows, young folk, persons who have lost their grip, who are poor and proud, folks who are above the destitute class, who have some little property, who have friends who would be vastly benefited if they could be shaken out of the large towns and cities by an earthquake and driven to the country. Twenty acres of land, with two and a half acres in miscellaneous fruits, five acres in raisin vines, a small patch for garden, and enough in alfalfa to keep a milch cow or two, some sheep, hens, pigs, and a stout horse, afford more of the comforts and luxuries of a thoroughly independent life than any amount of genteel poverty and false pride dragged out within the lines of a city, where religion and social intercourse are indulged in at the expense of independence and self-respect, and, not infrequently, at the cost of an honest life and a full stomach.

In concluding this article we may say generally that, notwithstanding the fact that the Legislature of the State of California did not pass any laws in regard to irrigation, still the districts that use the waters of the rivers and creeks to moisten their lands, thus rendering them independent of the rains, have progressed far more rapidly than other portions of the State. Fresno County, being the most prominent of the irrigated sections of the State, has advanced in population and wealth at a rate that is simply astonishing. The taxable property in the county in 1883 amounted to $11,975,467, while last year it was increased $2,445,026. The population has increased in a proportionate ratio. The town of Fresno, which in 1880 contained less than 1,150 inhabitants, now has a population approximating 4,000. This town, which is the county seat, has grown very rapidly. During the year over 100 new dwellings have been built at a cost of nearly $150,000; and 3 new brick business blocks, costing in the aggregate $90,000, have been erected. Two buildings are now in course of construction which will be an additional ornament to the city, namely, an armory for the Forsythe Guard, built of wood and costing $6,000, and a Masonic Temple, of brick, which will cost when completed $30,000.

The county is in a prosperous condition. It sent out in 1885 over 125,000 boxes of raisins, and produced a half million dollars worth of wine and brandy.

In addition, it is estimated by competent judges that about 380,000 head of sheep were shorn in Fresno this last spring. Averaging 4 pounds per head the yield was 1,520,000 pounds of wool at this clipping, worth about $175,000.

During the year a large new winery has been built by the Fruitvale Wine Company, and another by the Madera Vineyard Company. An extensive soap factory and a brewery have been built in Fresno, and 3 new churches, viz.: Baptist, Christian, and Congregational.

Madera, lying 25 miles north of Fresno, has also progressed rapidly. Some 20 new dwellings and several business houses have been erected during the year. The country adjoining is rapidly increasing in population and wealth. Selima, lying 16 miles south of Fresno, together with the country surrounding it, has grown rapidly, and the same may be said of Kingsburg and neighborhood.

This county now leads all other counties of California in the quality and quantity of the raisins it produces.

The mines of Fresno County are coming into prominence. On the north side of the San Joaquin, mines of gold and silver bearing quartz have been discovered, and are now being taken hold of and worked by leading mining men of the State. Coal of a good quality has been discovered in the southwestern limit of the county, and a mine is being worked which supplies a large part of the fuel used in this section and the northwestern part of Tulare County. Among the projected enterprises is a railroad to the pineries east of Fresno. A survey of the projected road is now being made. The population of Fresno County will now reach 18,000. Last season the best wheat crops in the State were grown in this county. Its orchards and vineyards cover 20,000 acres of land, and fully 2,000 acres will be added the coming season. Alfalfa growing, for the purpose of stock raising, is also coming into prominence, as from four to five crops, exceeding a ton of hay to a cutting, can be grown on every acre of the irrigated land here. The county during the year issued its bonds to the extent of $80,000, for the purpose of building bridges over the various streams that cross the county. Some $20,000 have been expended in building school houses in outlying districts.

The towns and precincts of importance are: Arcola, Auberry Valley, Big Sandy, Centreville, Cherry Hill, Chowchilla, Clark's Valley, Daulton, Dry Creek, Duke, Fancher, Fair View, Fresno, Fort Washington, Hazelton, Hill's Valley, Kingsburg, Kingston, Lake, Liberty, Modesto, Mendocino, Mechanicsville, Mill Creek, Millerton, Mississippi, New Idria, Orange Centre, Panoche, Pleasant Valley, Sycamore, Washington, and Webster.

HUMBOLDT.

Humboldt is a coast county, situated in the northwestern part of California. It is bounded on the north by Del Norte County, which separates it from Oregon; on the east by Trinity and Siskiyou; on the south by Mendocino, and on the west by the Pacific Ocean. The area thus embraced is 2,800 square miles; the estimated population is 20,000; the assessed value of the property is: Value of land, including town lots, $6,119,637; improvements, $1,628,137; personal property, $2,466,078, making the total assessed value $10,213,852, an increase within the past two years of $3,169,082.

For general small farming, dairying, stock raising, and lumbering, it is not excelled by any county in the State. Its inexhaustible river bottom lands produce enormous crops of all the cereals and fruits common to the temperate zone, while its natural prairies in Mattole Valley, on Bear River Ridge, and the Bald Hills, abound in rich pastures for cattle and sheep.

The average rainfall is 32 inches; the mean temperature of January, 40 degrees; of July, 58 degrees. Droughts and failure of crops are unknown. Pastures remain green by the influence of heavy fogs long after the winter rains have ceased and the southern counties scorched brown.

There are about 65 miles of railroad in operation within the county, of which the Eel River and Eureka Railroad Company is the principal, extending from Eureka to Hydesville, some 28 miles. The Arcata and Mad River Railroad, John Vance's, Dolbeer & Carson's, the California Redwood Company's, Occidental Mill, Flannagan & Co.'s, and Hooper Brothers' roads are all in good condition and in daily active operation. The right of way of the Eureka and Trinidad Railroad Company having been secured between Eureka and Arcata, it is expected that its construction will soon be commenced.

This county is exceedingly rich in its vast forests of redwood, with its rivers, the Mattole, Bear, Eel, Elk, Mare, Redwood, Trinity, and Klamath, abounding in salmon and smaller fish. These streams are of but little utility for navigation. Eel River is navigable only a few miles from its mouth by small ocean steamers to Port Kenyon on Salt River. Frequent shoals render them all useless, even for small crafts, the major part of the year.

The topographical features of Humboldt County are varied and picturesque. The surface is extremely rugged, numerous spurs of the Coast Range intersecting the county in all directions. The mountain scenery is magnificent, rising in many places to absolute grandeur. The crested peaks bristle with redwoods, spruce, fir, and pine, but mainly redwood.

Chestnut oak abounds in the eastern part of the county. On the bottoms, willows, alder, cottonwood, maple, ash, and baywood, or California laurel abound. Many of the redwoods approach nearly in size to the big trees of Calaveras, one tree, near Arcata, measuring 61 feet in circumference.

Humboldt Bay is the largest and finest on the coast save San Francisco Bay. It is 12 miles long, and from 2 to 5 miles wide. The entrance is about a mile wide, but has breakers on either side; between them is a channel a quarter of a mile wide, with about 18 feet of water at low tide. The entrance is somewhat dangerous, but when inside it affords secure shelter to vessels from all winds. Trinidad Bay is 17 miles north of Humboldt. It is a small harbor with deep water, good anchorage, and well protected from winds from all points of the compass.

Humboldt Bay is reached in 24 hours travel by steamers leaving San Francisco semi-weekly, or by daily overland stages in from 40 to 60 hours, according to the season of the year.

Eureka, the county seat of Humboldt, is situated on the east side of Humboldt Bay, occupying a pleasant site overlooking the waters of the bay. It is an incorporated city, with a population of about 6,000, and possessed of wealth, according to its assessment roll of 1885, to the amount of $1,780,728. It is chiefly dependent upon the timber and stock interests of the county for support.

The city is one of the most expensively and tastefully laid out on the coast. Many handsome business blocks and public buildings adorn her thoroughfares. The streets are rectangular and kept in good condition, while the facilities for numerous vessels along the wharves are quite adequate. Eureka is lighted with gas, and possesses many of the useful institutions of a metropolis. She is well supplied with commodious hotels, fine churches, and supports two or three excellent newspapers. The other towns and precincts are: Mad River, Jones' Bay, Union, Elk River, Bucksport, Salmon Creek, Table Bluff, Pacific Slide, Rohnerville, Hydesville, Yager Creek, Laribee, South Fork, Van Duzen, Grizzly Bluff, Island, Grant, Ferndale, Centreville, Bear River, Mattole, Upper Mattole, Cuddeback, Eagle Prairie, Worthington Prairie, Freshwater, Trinidad, Dow's Prairie, Bald Hills, Orleans, Bluff Prairie, Bridgeport, Coffee Creek, Iaqua, Klamath, Jacoby Creek, Bull Creek, Kneeland's Prairie, and Peninsula.

The principal productions of the county are oats, potatoes, peas, butter, and wool. The climatic conditions seem peculiarly adapted to oats, they forming the surest and most profitable crop. Yields of 100 bushels and over to the acre are not at all uncommon on bottom land near the coast. Peas require a rich, heavy soil, and here they find the conditions to ensure a good crop. Barley yields enormous crops; the grain is plump, and the weight above the average. It is not sown for export, as prices seldom warrant it. Butter is one of the leading articles of production. The length of the dairy season, the low temperature of the summers, the abundance of pasture, are all conducive to butter making. Wool stands next to lumber in value of export. A sheep can be kept on one fifth of the ground that it requires in Southern California, and the wool brings from 30 to 50 per cent more than any on the coast, except Oregon. The wool is clear of burs, and has a fine fiber of good length. Great care has been taken in improving the stock by the importation of fine merino bucks.

Perhaps we cannot do better for our readers by way of affording an insight into the developments of Humboldt County than to give the statistics, or a portion of them, contained in the last official report of the State Board of Equalization. In it we find a "Viticultural and Cereal Report for 1884." From it we learn that there were sown to oats 3,372 acres; hay, 1,494 acres; wheat, 699 acres; barley, 471 acres.

The Assessor's report for 1884 shows that the property of the county was assessed as follows:

Horses, old and young	1,360
Beef cattle	894
Stock cattle	9,934
Calves	5,894
Mules	817
Goats	301
Hogs	11,313
Sheep of all kinds	236,769

This is a good showing of live stock.

The lumber industry, to which the attention of the people of the county is directed, has been for the past year somewhat crippled, owing to the suspension of operations to some extent by the California Redwood Company. The effect of this, however, is somewhat local in its character, and is not generally felt throughout the county. The export of lumber during the past two years exceeded by some 17,000,000 feet that of previous years.

One writer, in speaking of the great natural advantages of Humboldt, says very forcibly and truly: The climate is equable and genial, with sufficient fog near the coast to prolong the green pasture; further inland, among the mountains, fogs are infrequent, the air is lighter and the temperature higher in summer and lower in winter. Apples, pears, plums, and cherries grow to remarkable size and perfection throughout the valleys a few miles from the coast. Peaches and melons of good flavor are raised at Camp Grant, about fifty miles from the sea. All small fruits and berries do well anywhere in the county.

The vine is not planted, although it would thrive, we think, if placed in warm and sheltered situations in the mountains and foothills. Corn is raised in Mattole Valley and in the mountain valleys as a crop. Vegetables of all classes grow to a wonderful size in all portions of the county, but come to market later than in the southern counties.

Well improved farms can be purchased for $50 and less an acre, stock and dairy ranges at very low figures. Large tracts of unsurveyed land still remain open, but about all eligible Government lands, except timber claims, have been entered. The principal farming lands are in the vicinity of Eureka, Arcata, Eel River Valley, and the "Island"—a term applied to a portion of land surrounded by Eel and Salt Rivers, adjacent to the coast—Mattole Valley and Bear River Ridge constitute the dairying region mainly, the Bald Hills in the eastern part of the county being almost exclusively devoted to cattle and sheep. In conclusion, for the limited capitalist, Humboldt County offers a home in proportion to his means and taste, where from the least land she will assure him the greatest range of products and a larger yield without irrigation than almost any other in the State.

INYO.

Inyo County lies between the State line and the high Sierra Nevada Mountains, the western boundary being along the summit of the latter, at an elevation of several thousand feet above the general level of the rest of the country and 8,000 or 10,000 above the sea. Northerly and southerly it extends from township line between townships 5 and 6 on the north, and the sixth standard line on the south, and contains 8,120 square miles, and a population of between 3,000 and 4,000. It is a country where extremes meet; a country of startling contrasts, such as are to be found, probably, nowhere else on the continent; a country of rugged and giant peaks, among which are Mt. Abbott (12,400 feet), Mt. King (14,000 feet), Mt. Williamson (14,500 feet), Mt. Tyndall (14,386 feet), Mt. Whitney (15,000 feet), and Inyo (some 15,000 feet), upon which the snow of ages forever rests, and forming a giant wall upon its west, as if to shut it from all connection with the State of which it forms a part, marked by precipitous and sharp outlines and deep chasms, such as to render an ascent to their summits from their eastern slopes almost an impossibility; a country where to the eastward of those peaks pointing heavenward the earth's surface sinks hundreds of feet beneath the level of the sea, as in that valley, once the valley of mystery and fear, known as Death's Valley; a country of beautiful and fertile plains, and of forbidding wastes; a country of almost Arctic frosts and torrid heat. The following is a brief historical sketch of Inyo County, written by one thoroughly familiar with its past:

In 1861 the territory now forming the prosperous County of Inyo contained but a few stockmen, who, braving even then the well known dangers of hostile Indians, brought their herds for pasturage in Owen's Valley, and a handful of the still more hardy and venturesome prospectors. From that time on, and up to 1865, it was almost a continued warfare between the few settlers, with occasional assistance from the United States troops, with the Indians, a branch of the Piute tribe, a tribe possessing all of an Indian's cruelty and savagery, yet having the merit of genuine courage, proved by many a well contested battle which ended only when the field became one of carnage and blood, and not always was the victory withheld from the dusky warrior. Notwithstanding which the number of inhabitants continued to increase. The Indians received in the early spring of 1865 their most severe and final repulse at the hands of the settlers, made up, as it then was, chiefly from the prospecting and mining classes.

In the meantime rich discoveries were reported in the Inyo Mountains, upon the strength of which towns were laid out and built up, and mills were constructed without any knowledge of the extent of the ore bodies, other than that derived from the most superficial workings. As a natural and almost inevitable consequence the mills failed to remunerate their more plucky than intelligent owners, which will be the more readily understood when in connection with a mere surface exhibition of rich but naturally rebellious ores, together with the cost of procuring and placing the machinery upon the ground, all of which had to be hauled by teams from Los Angeles, 250 miles distant, at an expense of from 8 to 11 cents per pound. Of course the mills failed to pay by reason of the great expense incurred in their erection, and, also, and chiefly, from the undeveloped condition of the mines, and from the difficulty of saving the metal really in the ores by the inexperience or ignorance of those in charge.

As a natural result of such a mining craze, the towns which were built up on the foundations of hope and rich croppings, notably "Owensville," "San Carlos," and "Bird City," show less to-day, as evidence that they ever had an existence, than the buried city of Pompeii. In the fall of 1864, what is now known as the Kearsarge Mines, situated in the Sierra Nevadas, and nearly due west from Independence, the county seat of Inyo County, were discovered, and upon the faith of which that town was started.

The discovery of the mines attracted much attention from mining men from Virginia City, who, in the spring of 1865, purchased the series of locations now so well known under the above name.

A new impetus was thus given to the mining activity of the country, and in the season of 1865–6, by Act of the Legislature, the County of Inyo was formed, being carved out of the Counties of Tulare and Mono.

The agricultural portion of Inyo lies along the foot of the great range, and is in the main comprised in Owens Valley, through which courses Owens River. The valley is about 95 miles in length, with a belt of arable land, varying in width from 2 to 8 miles, and lies at an altitude of about 4,000 to 5,000 feet. It contains about 175,000 acres of arable land, rated from fair to good. About 30,000 acres are under claim, about one third of this amount, say 10,000 acres, having been appropriated during the past year. Something near 12,000 acres are under cultivation and irrigated mostly from the numerous brooks and creeks that come down from the snowy Sierras.

The water from these streams is all under appropriation; but many of these privileges are susceptible to improvement whereby the water supply from that source might be materially increased. Six ditches, all but one of which are small, have been constructed to divert the waters of the river for irrigating purposes, and at least one, if not two others, both of large capacity, will soon be constructed for the same purpose. When the waters of the river are thus utilized scores of new farms will be opened up. Inyo County is a fine field for investigation and investment; but under existing conditions men of small means can do but little, single-handed, in opening up new farms, although there is a great abundance of both water and lands as yet unappropriated. The canals from the river, to be of much avail, will require to have a length of from 4 miles upwards, and will cost from $500 to $1,000 per mile. The valley is said to produce a finer quality of alfalfa hay than is found elsewhere in the State; and a similar claim is well sustained in regard to fruit of all kinds, and especially apples and grapes. A failure of ordinary crops has never occurred from natural causes.

Agriculturists generally are turning their attention to raising of fine stock, for which purpose a number of thoroughbred animals, both horses and cattle, have been added to those already on hand. The country is well adapted to stock.

The agricultural industry now takes precedence over the mining, though the latter continues to give employment to very many persons, particularly chloriders. The average output of ores for shipment has increased considerably in the past few months. The mines at Darwin are being worked steadily. One new mill is under construction, and one or two others that have been idle for a year or two will soon be in operation. Work is being resumed at Cerro Gordo.

In examining the statistics at hand we find that in 1884 there were sown in the County of Inyo 965 acres to oats, 1,312 acres to corn, 1,180 acres to wheat, and 1,364 acres to barley, making a total of 4,821 acres of land devoted to the cereals; and that area has been considerably enlarged in the two subsequent years. But there is another source of wealth possessed by this county of comparatively recent discovery. We allude to a vast quarry of the finest marble. A writer, speaking of the discovery, says:

> It is virtually a mountain of marble, rising to nearly 1,000 feet above the level of Owens River Valley. Whether or not its existence had before attracted attention is not known, but about 4 months ago D. A. Bender, of the Nevada and Colorado Railroad Company, procured a piece of the marble, and sent it to Israel Luce, a well known and experienced marble worker of Sacramento, to be tested as to its quality. Mr. Luce, after making several tests, became convinced that it was of a superior quality. He then visited the Owens Lake section, and satisfied himself of the fact that the ledge, or mountain, was practically inexhaustible, and the marble extra fine throughout—by all odds the best ever found on the coast. Further tests convinced him that it was better even than the famed Italian marble, and for these reasons:
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> 1. It is whiter, clearer, and of a better uniform color throughout.
> 2. It is stronger, having double the power of resistance to crushing weight.
> 3. It is free from flint.
> 4. It will not stain as readily as Italian or other marbles.
> 5. It will not effervesce by the application of muriatic acid, and if acid will not work on it, it is but reasonable to suppose that atmosphere will not. Geology teaches that dolomite (marble) or magnesian limestone is the most durable stone of the secondary formation; also, that being burned into quicklime it makes a more desirable cement than common limestone, owing to the fact that it absorbs less carbonic acid from the atmosphere than the latter. The eminent geologist, Von Beach, maintains that this peculiar quality of dolomite has been given it by volcanic vapor or gas. Some deny this, but give no better—nor, indeed, any other—cause for this change in the nature of the marble.

If this marble is all that is claimed for it in quality and quantity, Inyo has in this a better source of wealth and prosperity than in all her mines.

The Carson and Colorado Railroad runs through the valley from end to end. Fine marble quarries are being opened and worked at Owens Lake, and works for the evaporation of the waters of that lake to obtain the soda are now set afloat.

One new church building is being erected at Independence. A first-grade academy is soon to be established in the flourishing town of Bishop Creek, by the Methodist Episcopal Mission Conference of Nevada. This place also boasts of a local newspaper, established within the past year, and making the second one in the county.

The tax list for 1885 shows no falling off from 1884, but in the last few months the population has increased and the county has obviously made material progress. The advent of the Carson and Colorado Railroad upset old conditions, and the transition state was a trying one. That state, however, is now past, and the county is coming every day to a basis more and more permanent and thorough, and more in accord with the new conditions.

KERN.

Kern is one of the largest counties in the State, and includes within its boundaries the extreme upper (southern) end of the San Joaquin Valley, as well as parts of the Sierra Mountains and Mojave Desert on the southeast and south, and of the Coast Range of mountains on the southwest. The two mountain chains unite on the south, and thus form a high border of from 2,000 to 4,000 feet above the valley on all sides except the north, their spurs often extending far into the plains. The county is bounded on the north by Tulare, on the east by San Bernardino, south by Los Angeles, southwest and west by San Luis Obispo. It has an area of 8,160 square miles, divided as follows: San Joaquin Valley, 2,590 square miles (tules, 290 miles); lower foothills, 560 square miles; higher foothills and mountains, 1,955 square miles; desert lands, 2,180 square miles; Coast Range mountains, 885 square miles.

The following facts were gathered and published by Professor Hilgard, and can therefore be relied upon:

> The lower ranges and hills on the east and south are generally covered with grasses and shrubbery, and often with oak, pine, and fir trees. The mountain region of the west is said to be valueless for farms; that of the south and east, on the contrary, has numerous high valleys which are, to some extent, now under cultivation. The Tehachapi Valley, through which the Southern Pacific Railroad passes, is about 12 miles long and 3 miles wide, surrounded by very high mountains, and in it there is a small salt lake. In this valley the yucca first appears, which afterwards becomes so predominant in the Mojave Desert. Cummings' Valley, with a length of 6 and a width of 3 miles, and Bear Valley, 3 miles long and 1 mile wide, nearly adjoining Tehachapi. Abundant timber is said to be easily accessible to all of the mountain valleys. The valley of the South Fork of the Kern River, 8 miles north of Havilah, contains about 40 square miles, and is well timbered. The surface of the plains is very level and treeless, and for the most part has a sandy loam soil, which, with proper irrigation, is quite productive.
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> From Bakersfield, eastward for 10 miles to the foothills and cañons of Kern River, there is a strip of undulating country elevated above the valley proper and having a sandy loam soil. From Bakersfield southward, a belt of tule lakes reaches to Kern and Buena Vista Marshes, themselves little else than marshes, connected by a slough 100 feet wide, and thence northward to Tulare Lake, forming the outlet, in part, for the waters of Kern River. The lakes are gradually disappearing by evaporation, because of the shutting off of their supply by irrigating canals. The waters are strongly charged with alkali, and are totally unfit for use. Kern River Slough reaches from the north of Bakersfield westward towards the marshes, and forms, as it were, a "cut off," the country thus included between it and the old channel and the marshes of the east, south, and west, being a delta region of rich sandy loams, originally having a willow and cottonwood growth, and embracing the chief farming lands of the county, known as "Kern Island." Previous to 1875, the delta region, with the rest of the county, was considered almost worthless, agriculturally, and was almost entirely uncultivated; but, by means of an extensive system of irrigating canals, it has been shown that the lands are highly productive, and large ranches of thousands of acres each are now under cultivation on this island. Irrigation is, however, absolutely necessary, and a network of ditches and canals from 2 to 20 miles or more long and from 20 to 150 feet wide has been constructed, bringing the waters of Kern River into every portion of the county and carrying cultivation far into the plains.

To give an idea of the magnitude of the work accomplished, we give the following summary of irrigating canals, taken from the State Engineer's report:

> District No. 1, between Old South Fork and Old River—Total area, 80,000 acres; number of canals, 5; aggregate capacity of canals, 895 cubic feet per second.
>
> District No. 2, west of Old River and south of New River—Total area, 64,000 acres; number of canals, 9; aggregate capacity, 348 cubic feet per second.
>
> District No. 3, between New River and Goose Lake Slough—Area, 70,000 acres; number of canals, 11; aggregate capacity, 1,924 cubic feet per second.
>
> District No. 4, swamp lands south of Tulare Lake—Area, 103,000 acres; number of canals, 2; aggregate capacity at head, 3,370 cubic feet per second.
>
> District No. 5, north of Kern River and Goose Lake Slough—Area, 360,000 acres; number of canals, 6; aggregate capacity, 645 cubic feet per second.
>
> Total number of canals and ditches, large and small, 33; total length of main canals and branches, 275 miles. From the Kaweah River there are 16 canals; two carry water to the Mussel Slough region, the others to the region of Visalia.

Many artesian wells have been successfully bored on the north side of the two lakes, water being obtained at depths of from 200 to 300 feet. The artesian belt, as developed by the wells, has a length of about 18 miles and a width of 6 miles.

The principal ranches are the Livermore, about 12 miles south of Bakersfield, and the Belleview ranch, about 18 miles southwest, along Kern and Buena Vista Lakes, each including about 7,000 acres, and nearly all under cultivation.

From Fort Tejon, on the southern extremity of the county, to Kern River, a distance of about 40 miles, along the western border, the county for 12 miles from the Coast Range of mountains, is covered with salt marshes and brine and petroleum springs.

Transportation facilities are afforded by the Southern Pacific Railroad, which passes through the county, connecting with San Francisco on the north, and the Atlantic States on the southeast.

There has been little or no increase of population in this county since 1880, but improvement has been slowly progressing since that time, and especially during the past year, with a corresponding increase in assessed valuation. The assessment roll for this year, including real estate and personal property, foots up $5,091,119, about $500,000 more than in 1880. Last year the footing was $5,148,803, but the decrease this year is due to the fact that the Board of Supervisors, on petition of those concerned, declined to levy the tax on the alfalfa crop which had been imposed by the State Board of Equalization. Except for this there would be a large increase over last year.

A great deal of fencing has been done, and there is a notable disposition on the part of land owners to improve their possessions. As their line of pursuit is principally stock raising, very little produce is grown for export except wheat. The exports, however, of cattle, horses, sheep, hogs, and wool are considerable and steadily increasing. The land is held in large areas, and this is the most profitable use to which it can be put at present, pending the settlement of the water question. While this is unsettled, land owners cannot profitably divide up and sell their holdings, and no inducements are held out for immigration. The population of the county does not exceed 7,000, including Indians and Chinese, and has remained about stationary ever since 1880, while there is no prospect of increase under present circumstances. This small population has its principal seat in the Tulare Valley, south of Tulare Lake—the portion within the territorial limits of the county—and the main center is in and around Bakersfield, the county seat. The established residents, having plenty of room, and as great natural resources at command as can be found anywhere, constitute the most prosperous community in the State.

Twenty years ago this country was known mainly as a mining region, and, for many years, this industry had nearly ceased, but for the past two or three years, because of cheaper supplies and lower priced labor, it has been gradually reviving, but without excitement, as those engaged in it are working for legitimate profit—not speculation. It is impossible to form an estimate of the output of gold, but it is known to be considerable. There are men in the county who have been holding valuable groups of mines for many years, waiting a favorable time to work them, which they now appear to think is at hand. The most extensive mining in the county at this time, is at a point in the foothills, 15 miles, as the bird flies, from Bakersfield, and is known as Long Tom. The firm operating them have a fine mill, and the most approved appliances for extracting gold. Their principal mine is well developed, and they have rich ore enough in sight to last many years.

The season here has thus far been the most favorable for 18 years. The rain has been ample. There has not been sufficient frost to check the growth of the natural grasses, nor enough to retard materially that of alfalfa, the area of which will probably be increased this winter to the extent of 10,000 acres. More land will be sown this year than last to wheat, which is raised by irrigation and always yields heavily, being a sure crop. It is anticipated that there will be 100,000 sacks for export. Of barley there will probably be little more than enough grown for home consumption. There are some fine, but not large, orchards and vineyards, which produce fruit of the finest quality, and more are likely to be set out this season. There is an extensive warm belt along the eastern and southern part of the valley, mostly government and railroad land, with undeveloped facilities for irrigation; but as yet there is within it only one small orange and pomegranate orchard, and a few other semi-tropical trees.

LAKE.

Lake takes its place among the small counties of California. It is bounded on the north by Mendocino and Colusa, south by Napa and Sonoma, east by Yolo and Colusa, and west by Sonoma and Mendocino Counties. The county was organized in 1861, and contains 975 square miles.

Clear Lake, from which the county receives its name, occupies a central position, and is about 20 miles in length, with an average width of from 10 to 12 miles. It is a beautiful sheet of water, but the many mineral deposits which lie along the shores call into existence a doubt as to whether its contents could be properly called *aqua pura*. The lake is fed by numerous streams flowing from the mountains, and is the source of Cache Creek, which flows through Yolo and joins the Sacramento River. Though the county occupies a plateau of the Coast Range, the lake lies in a charming valley, which like the many smaller ones of the county is very productive. As may be seen by the Assessor's report, which occupies a portion of this sketch, the grain and fruit crops are considerable, whilst the returns for cattle raising and dairy produce are very important.

The population of this county in 1880 was 6,596, and for the present year about 7,000. The assessed value of taxable property in 1884 was $3,232,775, and in 1885, $3,249,388. The number of votes cast in 1882 was 1,179, and in 1884, 1,391. The vacant land in this county has been taken up very rapidly in the last two years. There is now more attention being given to the cultivation of the hill and timber land than before. All the hill land is the finest fruit and vine land found anywhere in the State.

According to the Immigration Association of California, the Government still owns in Lake County, mostly of this hill and mountain land, 440,000 acres, and says of these lands generally: "In Lake, Mendocino, and Humboldt Counties, the Government lands are generally mountainous, with narrow valleys and plateaux, covered with valuable timber of pine, oak, cedar, laurel, etc., with considerable undergrowth. There are many open places, either level or sloping enough to be plowed, and where nutritious grasses grow during the rainy season. Nearly every section is well watered by pure, cold springs, or running streams. Some of these lands are stony and the soil light, but generally there is good soil to the very summits of the mountains. Rich tracts for farming can be had by clearing off the trees and underbrush. There is very little Government land left on the coast, and it is necessary to go into the interior from 15 to 50 miles to get good land. Thousands of splendid mountain homes can be made here. There is an abundance of rainfall, and failure of crops is almost unknown. In Trinity and Del Norte Counties the lands are more mountainous and rugged, and the mountains higher. There are a few pretty valleys with some Government land still subject to settlement.

Within the last few years a good deal of this land has been made into small homes, and a good deal of attention has been paid to the raising of small fruits. But the great disadvantage that the people labor under is the want of transportation facilities—the people are too far from a market to make the business for the present very profitable. The great desire of the people of this county is a railroad that will enable the vineyardist and orchardist to compete with other localities more highly favored in this respect.

The present resources of this county are mostly derived from the crops of wheat, barley, oats, corn, and potatoes, from sheep and hogs, and from the lumber and quicksilver mines. All the valleys produce remunerative crops of grain, and some of them grow large crops of corn and potatoes. Sheep raising is also one of the industries of the county, and the extensive range afforded by the mountains and foothills makes it a profitable business. Owing to the pleasantness of the climate, sheep are very healthy, and, as a consequence, Lake County wools are sought after by buyers. A large number of hogs is raised annually. Oaks abound in most portions of the county, and the acorn crop, which scarcely ever fails, affords fine feed for them. Lakeport, the county seat, is a town of nearly 1,000 inhabitants, and is located near the center of the county, on the margin of Clear Lake, and distant from San Francisco 122 miles, and is reached by the North Pacific Coast Railroad to Calistoga and by a line of stages. It is a pretty place, and quite a thriving one, there being a large number of fine business houses, excellent hotels, two banks, a good public school, four churches, one large flouring mill, the various fraternal and benevolent associations, and supports a good newspaper, the "Lakeport Bee-Democrat;" the other towns and precincts being Morgan Valley, Lower Lake, Burns' Valley, Excelsior, Loconomi, Rincon, Uncle Sam, Kelsey Creek, Big Valley, Pleasant Grove, Upper Lake, Bartlett Springs, Bachelor Valley, Blue Lake, Cobb Valley, Middletown, Spruce Grove, Ashland, Callayomi, Mountain, Scott's Valley, Liberty, Fairview, Eureka, Highland, East Lake, and Great Western.

Fruits.

All the ordinary fruits do well here. Apples, pears, plums, apricots, peaches, and prunes mature finely and are of excellent flavor, and though no oranges or lemons are yet in bearing, a number of trees have been set out, and there is scarcely a doubt that they will mature well and prove a profitable crop. All the small fruits grow well, and there is no county where the soil and climate suit the growth of strawberries better.

Means of Transportation.

We have no railroad touching our borders, but we have in all parts of the county finely kept county and toll roads. The middle and northern portions of this county send produce to and receive freights at Cloverdale, on the San Francisco and North Pacific Railroad, that point being about 30 miles from Lakeport. The southern portion of the county teams to and from Calistoga, which is about 16 miles from Middletown and 30 from Lower Lake. There are regular lines of stages between Lakeport and Cloverdale, via Kelseyville; Lakeport and Calistoga, via Kelseyville and Middletown, Lakeport, and Ukiah; Lakeport and Colusa, via Upper Lake and Bartlett Springs, and between Lower Lake and Calistoga. These stages pass over splendid mountain roads, and are all managed by careful drivers. The day is not far distant, however, when Lake will be connected with other parts of the State by railroad, either from Lakeport to connect with the San Francisco and North Pacific Railroad at Sanel, which is only 12 or 14 miles distant, or from Lakeport or Lower Lake to Napa, or both.

Clear Lake.

A sketch of Lake County that does not say something about Clear Lake is a very incomplete one. This splendid body of clear, pure water is about 25 miles long, and from 4 to 12 miles in width. It is in the very heart of the county, and is one of its principal features. In winter it abounds with wild fowl, and in the spring and summer with fish. Catfish and whitefish have been placed in it, and in a few years they may be abundant; but the pike, perch, and blackfish are to the manor born, and the quantities that are caught are almost incredible, out of Lake County. Several small steamers, steam scows, and yachts, ply upon the placid bosom of the lake, and pleasure parties are the order of the day in summer and fall. The Blue Lakes are several miles northeast of Clear Lake, and altogether—there being three of them—are three miles long by half a mile wide. They, too, are clear and pellucid, and abound with fish and fowl. The mountains rise out of the very depths, and reflect their image in the sparkling waters.

Mineral Springs.

Lake County abounds with mineral springs, the waters of which possess great medicinal virtues. Bartlett's, Highland, Harbin's, Pearson's, Seigler, and Anderson's, are best known abroad; but there are a dozen others whose waters are very fine, and that will become famous. A large number of invalids and health seekers visit them annually, and the number will continue to increase as they become better known. It is estimated that from 15,000 to 25,000 persons visit the county annually in search of health or pleasure.

Climate.

But the great charm of this county is its pleasant and healthful climate. The winters are never severely cold, and the summers never oppressively warm. From November to April much rain usually falls, and ice occasionally forms; but during this period we have days and weeks at a time when the sun shines brightly and the weather is perfectly delightful. Flowers usually bloom all winter, which is sufficient evidence of mildness. From May until November the weather is always fine. But little rain falls, and though the summer days are warm, they are not sultry. A gentle breeze nearly always springs up in the afternoon, and though the evenings are sufficiently pleasant for even invalids to sit out of doors until bedtime, the nights are usually cool enough to make a light blanket or quilt comfortable as a bed covering. Fogs rarely ever visit this county, and harsh sea breezes are absolutely unknown here.

Game is plentiful in the mountains. Bears are becoming somewhat scarce, but there are smart hunters who kill some every winter. Deer are still plentiful, and quail can be found everywhere. The immense jackrabbit and the little cottontail are very numerous. Besides the lake fish already spoken of, the mountain streams abound with trout. So it will be seen that the lovers of the rod and gun can find sport to their hearts' content.

On account of the manifold attractions of Lake, it is becoming more each year the attraction for campers and pleasure seekers, who here find pleasure and lost health in this rightly named "Sanitarium of California." Owing to the imperfect and unsatisfactory tabulation of the later Assessor's report, we will give here the Assessor's report of 1882, which will give a good idea of the capabilities of the county, which is the information most sought after, instead of the exact quantity of the products of the soil and mines:

The Assessor's report for 1882 shows that in Lake County there were 12,923 acres of land under cultivation, yielding 91,205 bushels of wheat, 39,849 bushels of barley, 4,314 bushels of oats, 12,330 bushels of corn, 75 tons of potatoes, 7 tons of sweet potatoes, 8,551 tons of hay, and 3,000 pounds of flax. It had also 90 acres of hops, without mentioning the yield. Lake County is also credited with 15,720 pounds of butter, 300 pounds of cheese, and 214,000 pounds of wool. The value of the fruit crop is put down at $10,747, grown upon 8,185 apple, 1,545 pear, 190 fig, 1,639 plum, 4,048 peach, and 88 quince trees. She had 1,083 acres planted in vineyards, giving 600 gallons of wine, and in addition made 34,000 gallons of beer. Of live stock she is assessed upon 2,063 horses, 177 mules, 6,532 horned cattle, 54,225 sheep, 4,617 hogs. From her two steam and two water-power grist mills there were turned out in 1882 2,000 barrels of flour and 1,200 bushels of ground corn. Her four sawmills sawed 200,000 feet of lumber. The real estate of the county was assessed at $1,732,332, personal property, $618,172, a total of $2,350,504.

LASSEN.

Lassen County is one of the northern counties of California, separated from the southern line of Oregon only by Modoc—and lies on the eastern slope of the Sierra Mountains. It was formed in 1864 from the eastern portions of Shasta and Plumas Counties, and derives its name from a pioneer settler, "Old Peter Lassen," as he was generally and familiarly called. It was bounded on the north by Modoc County and on the east by the State of Nevada, on the south by Plumas County, and on the west by Shasta County. The southern boundary is very irregular, running in a southeasterly direction from Shasta to Sierra Counties, thus leaving the eastern boundary on the State of Nevada, 105 miles in length, while the western boundary is almost exactly one half the distance. The county is 70 miles in width, and embraces an area of 5,000 square miles. The county is a succession of mountain ranges and valleys, and although in the central and eastern parts the hills seemed to have been placed regardless of direction or order, the ranges have a general trend to the southeast and northwest. A ridge, having an altitude of 8,200 feet and called Diamond Mountain, makes the dividing line between Lassen and Plumas Counties. Diamond Mountain forms the southern side of Honey Lake Valley, which extends southeast and northwest, a distance of 45 miles and about 15 miles in width. In the extreme northwest corner of the county, and extending into Modoc County, lies Big Valley, a large stretch of agricultural land, comprising in Lassen County about 75,000 acres. This valley is watered by Pitt River, Ash Creek, and several smaller streams, and has something less than 1,000 inhabitants. Long Valley lies in the extreme southeast of the county, contains for its size but little agricultural land, but is remarkable for its singular conformation. Its south side is formed by a high, and very heavily timbered ridge, while the rise in the north is gradual and the country dry, timberless, and open. The valley is about 40 miles in length, but very narrow, having an average breadth of 1, 2, or 3 miles. Between Big and Honey Lake Valleys, lie Grasshopper, Willow Creek, Eagle Lake, and Horse Lake Valleys, separated from each other and from the main valleys by intervening ridges of various heights. Each of the last named valleys are very small, containing but few ranches, and mostly occupied by the bodies of water from which they derive their names. In the eastern central part of Lassen lies the Madeline Plains, a large, level tract of land, at an altitude of 5,300 feet. This plain appears to have been at one time the bed of a lake, but in some of the remarkable changes of nature, to have been transformed into its present condition. It is about 35 by 15 miles, and is covered by a dense growth of sagebrush. The only natural sources of irrigation appear to be the springs about its edge, where there are excellent stock ranches, the surrounding hills covered with bunch grass affording abundant feed. Any kind of grain will grow upon these plains if irrigated. And it may be that at some not distant day these sagebrush plains will be converted into waving grain fields, for there appears to be no good reason why water should not be had by the sinking of artesian wells, for the plains form a basin, surrounded by high mountains, and the surrounding hills afford an abundance of timber for wood, fencing, and similar purposes. In these respects it possesses advantages over many places on some of the great plains of Southern California where water must be obtained by artificial means, minus the natural wood for fuel and fencing.

But it is apparent that Lassen cannot be ranked, and perhaps never will, as a strictly agricultural county. We have no doubt that the time is coming when even the comparatively bare lands of Lassen will be eagerly sought for by immigrants, who will consider them by comparison with those they have left most desirable; but by reason of its remoteness from the great centers of trade affording a convenient market, and the necessity of irrigation, and other disadvantages, Lassen County will be among the last to benefit largely by those who seek farms in our State.

There is plenty of Government land in this county awaiting the settler, for out of the something over 3,200,000 acres in the county, the Government owns now about 2,700,000 acres open to preëmption. A great deal of this is valley land, and is in every way desirable, and the climate, considering the altitude, is mild, and generally very healthful. The average temperature in summer is about 80 degrees; in winter about 45 degrees. Although the surrounding mountains may be covered with snow, it seldom remains long in the valleys; and the spring is early, though liable to frosts.

But while Lassen is not as yet at least great in her cereal or fruit products, she is quite a large live stock producer, for her grasses fatten immense numbers of cattle and sheep, the major portion of which, however, are driven over the borders from less favored regions for native pasturage. One writer says that the annual export of beef cattle from Lassen is about 16,000 head. The Madeline Plains, some 5,000 feet above the sea level, is peculiarly rich in pasturage, the native grasses growing waist high.

The sheep are sheared twice a year, as in Central and Southern California, and the wool is marketable at Red Bluff, Tehama County.

Hogs thrive wonderfully in the soft tule lands about the lakes, where they feed upon bulbs and roots of the most nutritious character.

In addition to its agricultural and live stock resources, Lassen County possesses in its timber an immense source of revenue. It has an immense supply of large timber, consisting principally of pine, spruce, and fir.

The fruit crop of the county is also valuable and noted for its quality, "Honey Lake apples" being among the best grown on the coast, many thousands of boxes of which are annually sent out of the county, principally to Reno and Virginia, Nevada, in which markets "Honey Lake apples" know no competitors. Pears, plums, and the other smaller fruits also do well.

Susanville, the county seat, lies in Honey Lake Valley, 200 miles northeast of Sacramento. It is situated on the north bank of Susan River, about 20 miles from where it empties into the lake. The surrounding country is usually fertile, though irrigation is often needed. Susanville has an elevation of 4,184 feet above the sea level; its climate is never severe; much of the trade of Modoc passes through here; and it publishes a good weekly paper—the "Lassen Advocate."

The other towns and precincts are: Susan River, Lake Providence, Washington, Milford, Janesville, Willow Creek, Long Valley, Soldier's Bridge, Pleasant Butte, Richmond, Cedar Run, and Ash Valley.

Lassen, like Shasta, Siskiyou, and other northern mountain counties in California, possesses many attractions for tourists and those fond of summer camping and hunting. Wild game abounds in all parts of the county. Some years ago a railroad was projected to run from Reno up into the northeastern section of California and penetrate Plumas, Lassen, and other districts. Some 35 miles of road was completed and stocked with cars, but litigation ensued and no further progress was made. With a railroad tapping that splendid section of country it could not fail to be rapidly settled.

Lassen has not very largely increased in population during the year. Its distance from the main lines of travel chiefly account for this; and, doubtless, something is due to the fact that, owing to the geographical conformation of the State, the main entrance to the county is passed before California, the Mecca of the west-bound, is reached. And in this day of locomotives the stage coach seems like a relic of barbarism, to be read about and shunned.

Ranking eighth in size among the counties of the State, and forty-fourth in property valuation, a comparative exhibit of its growth would appear insignificant—especially so if viewed in the light of the progress made by many less favored but more accessible localities. Susanville, the county seat, has experienced quite a boom in the building line during the year. Many private residences have been built, several business houses erected and occupied, and a three-story addition to the Johnson House, one of the principal hotels, is approaching completion.

It has been said that Lassen has not grown much in population during the year, but otherwise it has slowly developed. Notwithstanding its comparative isolation, and its slow and primitive mode of communication with the outside world, it possesses sufficient of the elements of a strong and vigorous growth within itself to finally induce a populous settlement. While Lassen may be one of the last to feel the effects of the influx of immigration to the State, it will better meet the demands and expectations of those who come when the tide does set thither.

Taxable Wealth in 1885.

Real estate and improvements	$1,900,395
Head of cattle [evidently an error]	16,568
Head of goats	1,664
Head of hogs	2,162
Head of horses and mules	7,769
Head of sheep	25,743
Acres in wheat	9.756
Acres in barley	11,005
Acres in oats	2,750
Tons of hay	5,898

LOS ANGELES.

Los Angeles, the most important of the southern counties of California, extends in an irregular line about 100 miles along the Pacific Coast. It is bounded on the south by the Pacific Ocean and San Diego County, on the north by Kern County, on the east by San Bernardino County, and on the west by the Pacific Ocean and Ventura County.

It has an area of 4,750 square miles, divided as follows: Coast Range mountains, 2,305 square miles; valley lands, 1,480 square miles; desert, 965 square miles. We have no means of determining exactly the amount of tilled lands in the county, but from careful estimates we shall approximate to the amount very closely if we place the number of acres at 350,000. As it is the object of these papers to afford those interested a ready means of information of the general features of the country as regards topography, characteristics of soil, climate, etc., rather than to compile statistics of products, we take the following description from Professor Hilgard's valuable work on the "Agricultural Features of California:"

Los Angeles, the most populous of the counties of the southern region, borders the ocean on the south, while its northern boundary lies in the Mojave Desert. A range of high mountains, the San Fernando and the Sierra Madre, passes through the county with a course a little south of east, and an extreme width of about 30 miles, separating the Mojave Desert from the southern region of large valleys and hills, which comprise the inhabited and cultivable portions of the county, and which alone is well watered by numerous streams rising among the mountains and flowing into the ocean. Of these the most important are the Los Angeles River, rising on the northwest in the San Fernando Mountains and Valley; the San Gabriel, rising on the northeast, and uniting with the former a few miles from the ocean; and the Santa Ana River, which, also rising on the northeast, in the San Gabriel Range, and flowing through San Bernardino County, enters this county from a cañon in the Santa Ana Mountains of the southeast.

The Mojave Desert region, on the north, elevated more than 2,000 feet above the sea, is a desolate, sandy plain, without permanent streams of water and little vegetation other than, locally, yucca, sagebrush, some creosote plant (*Larrea*), and, occasionally, juniper and scanty grass. Water may be obtained in wells, but the region, because of the high and hot winds, which stunt or prevent the growth of vegetables or crops, save in protected spots and with irrigation, is hardly inhabited. There is said to be some good land, well adapted to fruits and small grain, in the foothills around Lake Elizabeth, on the western border of the desert, but the same causes have thus far prevented their utilization or occupation. There is also a large amount of alkali land in the low grounds of this section.

The mountain region that passes through the county is the continuation of the Coast Range, and is made up of high chains, trending in every direction, and, except in some of the passes, too rough and broken for tillage. The eastern and northern slopes are said to have many rich and fertile cañons, which are well timbered with oaks, but are not under cultivation. The Soledad Pass, through which the Southern Pacific Railroad has been built, trends westward to the Santa Clara River, and its lands are mostly gravelly and sandy, and have a vegetation comprising, in places, oak, willow, cottonwood, and sycamore, with alfilerilla, clover, bunch grass, and sage. The adjoining mountains are largely covered with chamisal brush. The agricultural region proper of the county, embracing that part lying between the mountains and the coast, is from 15 to 30 miles wide, and is divided into three large valleys—the San Fernando Valley on the northwest, separated from the coast and Los Angeles Plain by the Santa Monica Mountains; the Los Angeles Valley, which reaches from the Santa Monica Mountains southeast along the coast to the San Diego County line; and the San Gabriel Valley and its eastward continuation into San Bernardino County, separated from the Los Angeles Valley and the coast by the Santa Ana Range of mountains. The two latter valleys form what is known as the Los Angeles Plain, itself divided into an upper and lower, the latter reaching from the coast inland for 10 or 15 miles. The lands embrace dark and rich loams, black adobes, reddish mesa lands, and belts and tracts of alkali land, the latter occurring chiefly in the lower plain.

The *lower plain*, along the coast, is the corn-growing region of this part of the State, its moist lands needing no irrigation and producing fine crops. Gospel Swamp, southeast from Westminster, comprising a very low tract on either side of the Santa Ana River, reaches 10 or 12 miles from the mouth, and has a width of 6 or 8 miles. This tract is especially noted, its yield being from 80 to 100 bushels per acre. Here, also, "pumpkins forget to stop growing."

The crops of the county embrace corn, wheat, barley, and rye, while oranges, lemons, olives, figs, grapes, and other fruits are grown. Irrigation is, however, generally necessary, and to secure all the advantages possible, farmers have organized themselves into colonies in the several regions, and have constructed ditches from the streams to supply the needed water. The ditches from the Los Angeles River have a total length of 72 miles, and bring water chiefly to the region of the City of Los Angeles. Two ditches are taken from the San Gabriel River at the point where it leaves the mountains. One of these, the Azusa ditch, is, with its branches, about 30 miles long, but its supply is limited. The Duarte ditch is 12 miles long and its supply is also limited.

From the two branches of the lower portion of the San Gabriel, between the Coast

Range and the sea, there are at least 23 ditches of more or less importance, the largest of which is the Arroyo, which is 9 miles long. The beds of the streams are so shallow that water is diverted from them without difficulty, by means of simple and inexpensive dams of brush and sand.

The Santa Ana River supplies water to two important canals, as well as to a number of small ones. The Anaheim Canal is 8 miles long; but much water is lost in the coarse sandy soil, and its banks are protected against erosion by willow trees.

The Cajon Canal heads at Bedrock Cañon in the Coast Range, and follows along the face of the broken hills for 8 miles, before reaching the plateau overlooking the valley. Its total length is 14 miles, and 25 miles of main distributing ditches have been constructed.

The Santa Ana Canal has a total length of 20.5 miles. At 8 miles from its head, it divides, one ditch skirting around the rim of the valley, and the other passing across the valley through Orange, to Santa Ana.

To write about Los Angeles County is not at all a difficult thing to do as regards matter, for the materials at hand are very abundant. It may be called without invidiousness, the great show county of the State, and probably has been more written about than any other county, and probably has attracted more attention, and is better known outside the limits of the State than all the other counties combined, with the practical result that a very large immigration has been attracted toward it, giving it a phenomenal growth and development within a comparatively short time. Its citizens, many, if not the most of whom, came from the harsher climate of the Eastern States and found it, naturally fell in love with it, and making homes there, they put their heart in their work and made successes. They brought with them business thrift and practical sagacity, and were not slow in appreciating the exceptional advantages which the region possessed, and were not slow to spread far and wide the knowledge of this new Garden of Eden. A land where any man with moderate capacity and a small stock of patience, could gather oranges from his own groves, and sit under the shadow of magnificent vines of his own planting, and gather all of the fruits of the tropics in his very own orchards and gardens, naturally inspired a large enthusiasm in the northern mind, and people from afar came in increasing numbers to see for themselves the wonders of the land. Travelers and tourists from all lands must perforce see Los Angeles and its orange groves, and poets wrote of them in most melodious numbers, and only honeyed words dropped from the pens of correspondents as they breathed the odor of orange blossoms. As an illustration of how the imaginations of men caught fire over what was to them a strange surprise, we quote the words of Benjamin F. Taylor, who wrote as follows a few years since:

> If I were asked where Los Angeles is, I would say: Across a desert without wearying; beyond a mountain without climbing; where heights stand away from it; where ocean winds breathe upon it; where the golden lime hedges border it; where the flowers catch fire with beauty; among the orange groves; beside the olive trees; where its pomegranates wear calyx crowns; where the figs of Smyrna are turning; where the bananas of Honolulu are blossoming; where the chestnuts of Italy are dropping; where Sicilian lemons are ripening; where the almond trees are shining; through that alameda of walnuts and apricots; through this avenue of willows and poplars; in vineyards six Sabbath days' journey across them; in the midst of a garden of 36 square miles—there is Los Angeles.

In this manner this county has received a wonderful amount of free advertising.

And this is by no means to be deprecated. Los Angeles is indeed a wonderful county, and hardly too much can be said in its praise, but it is by no means all of California, and what has been said of it can justly be said of a great many other places, and it is just as well to caution some people, they must not come even to Los Angeles County with minds all aglow over the poetic descriptions of her marvelous climate and tropical luxuriance and expect life to be one long indolent holiday, for such will meet with disappointment. The same laws that govern success elsewhere obtain here, with this difference, probably, that nature will be more kindly here, but you must work out your own salvation, and not expect oranges to drop into your mouth without an effort.

After this, perhaps, we cannot do better for our readers than to give a few extracts from a pamphlet issued by the Los Angeles Board of Trade, in 1884. In speaking of the products of the county, it says:

> Corn, barley, potatoes, wheat, rye, beans, alfalfa, flax, hemp, and all kinds of vegetables thrive here to a remarkable degree; its hams, bacon, and dairy products equal the best in the world. Of fruits, the grape, pear, peach, plum, nectarine, cherry, apricot, fig, orange, lemon, lime, walnut, and all the small fruits, nuts, and berries grow luxuriantly and yield largely. This is the great orange section of the State. The raising of sheep, cattle, horses, and hogs enter largely into the farm husbandry of Los Angeles County. The bee interest is also very important, especially along the foothills of the San Gabriel Range of mountains. Wool and manufacturing of woolen goods are important and rapidly growing industries. Petroleum, lead, iron, copper, tin, gold, silver, lime, granite, gypsum, asphaltum, coal, borax, and salt abound in this and neighboring counties.
>
> The importance of our mineral productions may be judged from the fact that the three counties of Los Angeles, San Bernardino, and San Diego yielded not less than $4,000,000 in 1883, and it is worthy of mention that the mineral is near the surface in our richest mining regions, for gold, silver, and copper, while soda and borax are found in exhaustless quantities like the soil of the prairies. The supply of petroleum in Los Angeles and Ventura Counties covers an area of 200,000 acres and promises to yield as largely as the oil wells of Pennsylvania, in a few years, the product already being valued at $1,000,000 per annum, and with the utmost universal adoption of crude petroleum as fuel for manufacturing purposes, the possibilities of this section as a manufacturing center for the vast quantity of articles which can be made from our products need no further argument.
>
> As an indication of the capabilities of the county we reproduce the following from the same source:
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> *The following official table taken from the Assessor's book shows the progress in production of Los Angeles County since 1878:*

Date.	Acres of Vine-yard.	Gallons of Wine.	Gallons of Brandy.	Bushels of Beans.	Acres land Culti-vated.	No. Orange Trees Bearing.	Bushels of Barley.	Bushels of Wheat.	Bushels of Corn.	Total Railroad, Real, and Personal Property.
1878	5,850	1,696,000	65,000	29,000	100,350	103,500	350,600	75,000	750,000	$15,700,000
1880	6,235	2,019,000	85,000	25,000	130,000	192,000	590,000	378,000	800,000	18,503,773
1882	11,440	3,100,000	145,000	33,000	212,000	450,125	729,000	1,700,000	1,267,500	20,809.850
1883	20,000	4,000,000	250,000	50,000	250,000	526,640	1,000,000	2,000,000	1,500,000	25,459,098

> *Los Angeles Valley*
>
> Is the most productive, probably, in the State, and is destined, at no distant day, to teem with a dense population. This valley is over 50 miles long and about 20 wide, so that it contains 1,000 square miles, or 640,000 acres. Of this land 160,000 may be classed as grazing, 160,000 grape and tropical fruit land, and 320,000 acres superior corn lands, equally adapted for barley, rye, oats, millet, potatoes, hops, etc. It is estimated that at least 500,000 acres of land can be irrigated. It lies most favorably for purposes of irrigation, being a level plain with a fall of 10 feet per mile in a southerly direction. Many very large ditches are already constructed in this valley, leading the water from the rivers, and many are being dug at the present time. The supply of artesian water in this valley is also the most prolific yet discovered in the State, flowing wells being obtained over an immense area at depths ranging from 40 to 200 feet. The soil, as a rule, is a rich, sandy loam, easily worked and very productive. For richness of soil, variety of productions, favorable climate, location, and in many respects this is by far the richest county in Southern California, especially in the production of semi-tropical fruits. It is not extravagant to say there are over 2,000,000 orange trees in orchard form in this county.

As there is a natural desire to know something definite concerning the cost and profits of vineyards, orange orchards, and raisin culture in these southern counties, this is as good a place as any to afford the information at hand, only remarking that due allowance must be made for fluctuating markets, etc.

The information following applies to Los Angeles County, but may be taken as a general guide:

Cost of Planting a Vineyard.

The expense will be from $15 to $25 per acre, the range of price depending on management, price of cuttings, and nature of soil. The after culture will be from $10 to $15 an acre, and if good care has been taken and a judicious selection of soil has been made, a vineyard should pay expenses, or more, the third year.

Lands here for vineyards, with facilities for winter irrigation, can be bought for from $50 to $75 per acre, and lands without irrigation from $20 to $40. Almost all soil will grow grapes, and any soil, with reasonable quality for fertility, provided it is loose and does not bake, with no hardpan near the surface, will be suitable for grape growing.

Cost of Planting an Orange Orchard of 10 Acres.

The following figures are from the very best authorities on the subject:

Cost.

10 acres of land	$1,000
1,000 trees, budded or seedling	750
Planting and caring for same first season at $25 per acre	250
Caring for orchard second year at $15 per acre	150
Caring for orchard third year at $15 per acre	150
Caring for orchard fourth year at $20 per acre	200
Caring for orchard fifth year at $25 per acre	250
Other expenses incidental to work	550
Total	$3,300
Interest on investment	1,000
Grand total	$4,300

Receipts.

The yield and prices are placed at the lowest possible estimates:

Third year, crop scattering oranges, a few hundred or thousand	Not counted.
Fourth year, an average of 50 oranges to the tree, 50,000 oranges, at $20 per thousand	$1,000
Fifth year, 200 oranges to the tree, 200,000 oranges, $20 per thousand	4,000

If these prices are maintained the owner has his investment all back again at the end of five years, and is ready to ship oranges in large quantities every year thereafter.

While the newcomer in Los Angeles County labors upon the drawback of encountering higher prices for real estate than those who preceded him, he has some compensating advantages which the pioneers lacked. In the first place, when our earlier vineyards and orange groves were set out it was a haphazard experiment. In the orange groves particularly, indifference to the quality of the fruit was a noticeable circumstance. The newcomer now benefits by the cordially imparted experience of his older colaborers. He can start at once with the Mediterranean Sweet, the Washington Navel, the Blood Orange, and other valued species, as to which a fund of very valuable information has been collected, and whose cultivation will assure him a much larger income than the planting of the common varieties.

Raisin Culture.

The raisin industry has leaped from the most insignificant to one of the most important. The first shipment of raisins from Los Angeles County was made in November, 1880, from Santa Ana, comprising about 1,700 boxes. The shipments for 1882 aggregated over 25,000 boxes, and for 1883 over 30,000, a wonderful increase, and still this industry is merely in its infancy. Our raisins are already conceded to be equal to the best Spanish Malagas by New York jobbers, and there will doubtless develop within the next decade a business in this valuable fruit exceeding that of the far famed Malaga district, especially as the yield of our wonderfully rich and virgin lands is from three to four times that of the above section. A European may feel loth to believe it, but the statement is true, nevertheless, that there are varieties of the grape growth in Los Angeles County, which yield as high as fifteen tons to the acre.

The following facts and figures regarding the cost and profits of raisin culture were furnished by a practical raisin grower of Riverside. Assuming that the land has been bought, starting with one year old vines, the total expenses for the first year would be per acre:

680 roots, 1 year old, 2 cents each	$13 60
Planting and care of same	30 00
Water for same	3 50
Staking and incidentals	10 00
Total	$57 10
Labor and water, second year	25 00

Returns after two years:

Third year, 50 boxes per acre, at $1 60	$80 00
Fourth year, 150 boxes	240 00
Fifth year, 200 boxes	320 00
Sixth year, 250 boxes	400 00
Total	$1,040 00

Thus, in less than six years, the balance sheet, in ordinary circumstances would stand:

First year's expense	$57 10
Five years, $25 per acre	125 00
Trays, sweat boxes, etc.	88 00
Expense of picking, packing, etc.	390 00
Total	$660 10
Sale of raisins, 6 years	$1,040 00
Total expenses, six years	660 10
Net profits, six years	$379 90

I have put the cost of labor at the highest figure, while the price of raisins is, perhaps, lower than we have reason to expect, and I know of growers who have done much better than that; for instance, one grower sold 615 boxes from 2 acres in about 30 months from the time of planting, realizing a total of $1,200, at a cost of not over $300. Another realized $600 from 1 acre, at a cost of $100 on an old vineyard; but these are, perhaps, rather more favorable instances than the average, and it is much better to figure under than over the mark.

The City of Los Angeles is the county seat of Los Angeles County, and has a population of 35,000. It is reached by the Southern Pacific Company's Los Angeles Division (Pacific Division), or by Pacific Coast steamer to Wilmington, thence by Southern Pacific Company's Wilmington and San Diego Branch. It is 430 miles from San Francisco.

The majority of the city is built on the plain along the Los Angeles River. There is a growing tendency, however, to the round hills just to the west, made readily accessible by the two new cable roads, of which the city is justly proud. World wide travelers have found no more enchanting view than from these hilltops. The fast growth of Los Angeles has been phenomenal—from 11,300 in 1880 to 35,000 in 1885. It has the conditions of permanent growth as a commercial and agricultural center, health resort, etc. It has the bulk of the territorial trade, a vast agricultural area, perfect climate, superb scenery, and admirable facilities for manufacturing. The public schools will compare favorably with any. The city has also a big branch of the State Normal School, a full fledged university, with law, medical, and other departments, two colleges for young ladies, several catholic colleges, and many private schools. The city has 27 churches, all denominations being represented. All branches of business are to be found in Los Angeles, but, from its surroundings, those branches immediately connected with agriculture, fruit growing, and viticulture predominate. The city has complete post, express, and telegraph facilities, and is lighted by the electric light; 18 masts, each 150 feet high, shed the light upon the "City of the Angels." It supports some 10 excellent newspapers.

The present year has been an exceptional one for the growth and prosperity of Los Angeles County. The great boom which began in 1880 has continued, and the promises of the present year are greater, in the matter of population and wealth, than any in her past history. It is estimated that she was visited by at least 20,000 tourists in 1885, and the number will greatly exceed this for 1886. The population of the county was 60,000 in 1884, and she has now, probably, 75,000, and is rapidly increasing.

The assessed property valuation for the year 1885 was $39,402,045, or, including assessed railway property, $41,932,985.

Indications of progress are everywhere to be seen. In the city new buildings are going up on every hand; a cable road has been built, another is being constructed, and many other improvements are in progress. In the country new colonies, mostly composed of substantial citizens from the East, are springing up on every side. The outlook for the entire county, judging by the promises of the present, is brighter than ever before.

MARIPOSA.

Mariposa County is triangular in shape, with its north side bounded by Tuolumne, its south by Fresno, and Merced lying at its western base. It is perhaps principally remarkable as containing the Yosemite Valley, but this fact, though it attracts a host of visitors and tourists, who all leave some money behind them, has little to do with the position of Mariposa as an important county of California. It has an area of 1,560 square miles, divided as follows: Lower foothills, 530 square miles; higher foothills and Sierra Mountains, 1,030 square miles.

The county reaches eastward from the edge of the San Joaquin Plains across the foothills far into the Sierra Mountains, its altitude thus varying from about 300 to from 10,000 to 13,000 feet, that of Mount Dana being 13,227 feet. The largest stream of the county is the Merced River, which rises on the extreme east and flows westward to the plain.

On the south, Chowchilla River forms part of the boundary between this and Fresno County, while numerous smaller streams flow westward into Merced County. The eastern part is timbered with pine, spruce, and cedar, the central with oak and pine, while the western is sparsely timbered, and the extreme west is almost timberless.

The most prominent point of interest in the county, as before remarked, is the celebrated Yosemite Valley, situated on the east at an elevation of 4,060 feet above the sea. The valley proper is about eight miles long and from one half to one mile wide, the greatest breadth being three miles.

The Merced river flows through it, while on either side are very high cliffs, rising in places thousands of feet above the valley. On the lower mountain slopes and in the valley are groves of pine, with some oak, willow, and cottonwood.

The famous valley has been so often described and illustrated that it is unnecessary to dwell upon it in this connection. The mountainous portion of the county, too high and broken for cultivation, extends westward to within a few miles of Mariposa, the county seat. A region of foothills of from 2,000 to 4,000 feet altitude then crosses the county from northwest to southeast, and reaches westward about 15 miles beyond the county seat and into the southern part of the county.

It is hilly and broken, interspersed with prominent mountain chains, and is well timbered with pine and oak, the source of supply for the mining camps of the region. Very little farming is done in this part of the county, except on a small scale in the valleys. The extreme western part is more level, its hills being susceptible of cultivation, and is but sparsely timbered with white and blue oaks.

The soil of the hills is mostly a reddish clay, that of the valleys or lower lands being chiefly a dark loam, with red subsoil. Some farming is done in the lower foothill region, small grain, fruits, and vegetables being produced. The county is, however, chiefly engaged in mining, and the supplies are produced mostly for home consumption.

Lumbering is also carried on in the higher foothills and mountain region.

A portion of the county is covered by the celebrated (or notorious) Fremont or Las Mariposa Grant, the litigation concerning which has been fruitful of much evil to the county, and the unsettled condition of which property has greatly militated against the prosperity and development of the great mineral wealth buried in her mountain sides.

Happily, however, for all concerned, the litigation concerning this grant has now been settled, and the rich mines within its limits will now probably be worked. And when this is done, and the great number of other valuable mines within the county are in active operation, Mariposa County will be one of the liveliest and most prosperous counties in the State. Several quartz mills have been built within the past two years, and more are contemplated; and all are looking forward to greater activity in the mining region than has ever been known in her past history. One writer says that the people of the county hope to receive immense benefits from the control of the Yosemite travel, and that what the people want is a road up the Merced River to the valley. By this route there will be but one day's staging. The county, if it has an eye to its own interests, will build the road and make it free of tolls; but if it does not it will be built by private capital. There is no scheme in the State that will so surely pay large returns on the money invested as will the building of this road, the reasons for which are obvious: the road can be traveled every day in the year; the staging will be reduced from two days to one day, with a consequent decrease of expenses to the traveler. When the road is built persons of moderate means can afford to go to Yosemite; the demand for produce will make a market for farmers, and the cattle, sheep, and hogs raised in the county will be consumed by the visitors to Yosemite.

Mariposa, the county seat, lies 145 miles southeast of Sacramento, 185 miles easterly of San Francisco, 110 miles easterly of Stockton, and 45 miles northeasterly (via stage road) from Merced, a station of the Visalia Division of the Central Pacific Railroad, and contains a population of about 500. It supports two good papers, churches and schools, and enjoys a measurable prosperity, and is patiently waiting for better times, when the county's ship comes in richly laden with gold and silver from her many mines.

The population of the county is estimated to be 6,000, an increase of 1,000 since 1884. The cause of the increase in population is the throwing open to settlement of a large area of Government land, many thousands of acres having been preëmpted during the year, while there are yet many good locations open to settlement. The taxable property increased from $1,633,486, in 1884, to $1,674,483, in 1885, a very fair showing considering the dull year. The generous rains have started the grass to growing nicely; and the outlook for farmers and cattle raisers is exceedingly bright for the year 1886.

We see by the Assessor's report for 1884 that Mariposa County had 6,737 horned cattle, young and old; 252 mules, 8,582 goats, 8,923 hogs, 63,028 sheep. The grape and fruit interests are at present insignificant; but she is capable of producing fine wines and raisins in great abundance, and surely will some day.

MARIN.

For the following description and statistical information concerning Marin County, we are indebted to the splendid holiday number of "The Marin County Tocsin," published at San Rafael, by J. H. Wilkins. We had accumulated quite a store of information about the county, with a view to this special work, besides having a good deal of personal knowledge of the general topography and special features of the county, but the paper in the "Tocsin" is such an admirable one, and so thoroughly authentic and exhaustive, that we have no hesitation in making use of it for these columns, as the very best and most reliable descriptive and historical resume to date that we have seen. It can be relied on. The author says:

Marin County is a peninsula bounded on the north by the line of Sonoma County, on the east by the Bays of San Francisco and San Pablo, and on the west by the Pacific Ocean. The extreme southern extremity faces the Golden Gate, beyond which the City of San Francisco is distant about three miles. Its geographical advantages can be appreciated at a glance. Situated on the highway over which the commerce of the great undeveloped north must pass and find a terminus, it must one day be the center of great business interests. Its immediate proximity to the metropolis of the Pacific Coast, also coupled with the attractions of climate and scenery, have already both given it extensive introduction to settlers and made it a favorite place for suburban residence. Its area, in round numbers, is about 350,000 acres, or a little less than 600 square miles.

Physical Features.

Except along the northern border, Marin County is inclosed by the waters of the Pacific Ocean and the Bays of San Francisco and San Pablo. It is deeply indented by Richardson, Bolinas, Drake's, Limantour, and Tomales Bays, their tortuous outlines giving a coast boundary of several hundred miles. Richardson Bay alone affords navigation for vessels of great burden, although Tomales Bay can be entered by ships of 20 feet draught. For all smaller crafts, such as are required for the not very extensive coast trade, the above mentioned inlets give safe and ample facilities. Along the seaboard there is no place distant even as far as 10 miles from a shipping point to the San Francisco markets.

The county is, like its sisters along the Pacific, a region of low hills and complex ridges, not 10 per cent being what might be classed as level land. Mount Tamalpais is the only peak that rises to the dignity of a mountain, but the high backbone that sweeps up and down the coast from its summit is of an altitude of nearly 2,000 feet for its whole length of about 40 miles. It is this great natural barrier that effectually defends the interior of Marin from harsh ocean winds and fogs and gives it a climate equivalent to that of Greece, a little cooled.

Along the shores of the Bay of San Francisco a stretch of salt marsh land extends with few breaks from Point Tiburon to the northern boundary of the county. About 25,000 acres is included in lands of this description. Successful experiments on a large scale have demonstrated that such land can be reclaimed at a comparatively insignificant expense, and in a few years the entire property of this description will be converted into tillable meadows. Aside from the salt marsh, valley land proper forms a small percentage of the county, but what there is rivals, if it does not surpass in productiveness, any in the State.

Although still supplied with timber for the ordinary domestic and home purposes, Marin County was once far more heavily wooded than it is to-day. During the early days, when lumber was almost worth its weight in gold dust, the most accessible forests that clustered along the great Tamalpais ridge were stripped off to aid in building the empire city of the west. There are now only two forest tracts of any extent untouched—through the Lagunitas Cañon and on Point Reyes—aggregating about 15,000 acres. This is, of course, exclusive of chaparral tracts and other stunted growth, of which there is as much more.

About four fifths of Marin County drains into the Pacific Ocean. The line of watershed may be thus defined: Draw an imaginary line beginning at Lime Point, near Saucelito, and follow the ridge to the south of what is known as Big Lagoon Cañon to the summit of Mount Tamalpais. From the summit of Tamalpais continue the line along the ridge which divides the Lagunitas country from the land lying to the north and east, cross the summit of White's Hill and pass over the low point in the ridge under which the North Pacific Coast Railroad has constructed its tunnel. Thence ascend to the summit of Loma Alta. Thence produce the line to the point where the Miller Valley road crosses the ridge near Big Rock. Follow the ridge northerly that divides the Nicasio Creek system from the drainage to the east. This would reach the headwaters of San Antonio Creek on the Sonoma County boundary. All water falling to the east of this line flows into the Bay of San Francisco. All water falling to the west of this line would flow into the Pacific Ocean.

There are no rivers within the limits of Marin. The largest stream is the Lagunitas or Paper Mill Creek, which, while not navigable, affords a fine water power, except during the few months of the dry season.

It is not within the province of this work to enter into a scientific dissertation as to the geology of Marin County. The rock formation is principally metamorphic sandstone, and cretaceous rock, of a porphyritic type, much decomposed. From Novato, northward, there are extensive croppings of excellent basalt. Slates and shales are not uncommon. Quartz ledges, carrying appreciable quantities of the precious metals, are found on Mount Tamalpais and its spurs, but attempts to work them to an advantage have not been successful.

Traces of almost all the other valuable metals have also been discovered. Towards Tomales Point, at the extremity of Point Reyes, the formation is granite. Near the village of Olema there are beds of limestone sufficiently rich to have justified the operation of several kilns for burning lime.

The Climate Classified.

Marin County has two distinct climates, that may be classified, in general terms, as the ocean coast climate, and the inland climate. They differ from each other to an extent that can hardly be realized, when it is known that these great atmospheric variations are only separated by a shallow mountain range, not more than two or three miles across.

The Coast Climate.

The ocean coast climate has about the same general features as characterize that of the entire northern seaboard of California. While mild and uniform, most localities are exposed to the sweeping winds from the ocean, and to heavy fogs. This is not an ideal climate, according to the authorities; neither is it one specially sought for by those seeking permanent homes. All the same, the results are good, if the pudding is to be judged by the eating. In all California it would be impossible to find more robust, vigorous, and healthier looking samples of men and women than these very same people, who live contented among the winds and fogs of the Marin County coast. To other forms of animal life, the region is still more kindly. It is the paradise of the butter maker, the favored home of our dear old friend, the cow. Here, among the flowers and green grass, that last into the autumn long after the rest of California had yielded to the remorseless sun of summer, those wonderful results in dairying are accomplished, that have excited the incredulity of our brothers in the East. Here, too, is developing a splendid breed of horses, that bids fair to compete successfully with the great blue grass stock of Kentucky. It has been noted by scientists, that where horses and cattle thrive, there, also, will man reach a high development. But this will be more fully discussed under another head.

The Inland Climate.

The inland climate is a thing apart. It represents one of those strange and sudden climatic transformations that amaze the traveler on the Pacific Slope. Isolated from the coast by the lofty ridge of Mount Tamalpais, yet still sensitive slightly to the tempering influence of the ocean, it is at once defended against wind and fog, and not subject to the torrid heats of summer, that embitter existence farther in the interior. Its great importance as a sanitarium has been recognized from the date of the earliest occupation by the Spanish.

The climate of San Rafael Valley may be taken as a type of that of the entire interior section of Marin. It has been likened to the climate of almost every noted resort in the Old World and New, but, nevertheless, it differs from all in some essential particular which, although never formulated, nevertheless has an active existence. Many localities correspond with it nearly in average temperature, variations of temperature, humidity, average number of cloudy days, and other similar conditions, but there is likewise this subtle quality in the air, that has escaped the analysis of the closest observer, that distinguishes it from any other climate on the coast. Whatever it may be, it makes the mere fact of existence a pleasure, dulls the edge of care, and gives to society a degree of local attachment to the soil remarkable in so young a community. Those who settle come to stay. Many owe their residence to a mere visit, and look back with wonder at the fatalistic power that held and holds them fast among the hills and valleys of Marin. The writer's family first saw San Rafael in 1863, and the sojourn was positively limited to two days. That was nearly twenty-three years ago. Those two days lasted remarkably well.

The growth, almost the existence of San Rafael, is due to its climate. Commercially and geographically, it is not the natural site for a very considerable town. It is not situated so as to be the shipping or distributing point for an extensive territory. Its development is wholly ascribable to the above cause. Twenty years ago it contained not above 200 inhabitants. Now its population is very close to, if it does not exceed, 4,000, and its reputation has been gained by the secure, steady, and best means of the merit that forces recognition. It has never been advertised or written up. While Los Angeles, Santa Barbara, San Diego, Santa Cruz, and other ambitious resorts were flooding the earth with circus poster puffs about orange groves, balmy skies, and the moral certainty of getting rich in a hurry in their glorious climes, San Rafael and Marin County have been content to let the world find them out by itself. It has literally made no effort to go ahead by hothouse and forcing bed methods. Yet, as before stated, it now contains a population of 4,000 souls, and has become the home of many of the richest, ablest, and most distinguished citizens of the State.

Organization.

Marin was one of the counties originally organized by the Monterey Convention. It is said to have been named after a redoubtable buck who reigned over the Indian tribes of the vicinity when the Mission at San Rafael was established. During its early political life the county labored under more than ordinary difficulties. There were no roads worthy the name. Up to 1854 only two Post Offices had been established. There was no accurate map on which to base a property assessment, a great uncertainty existed as to the Spanish grant land titles, and several defalcations by officers occurred that almost stopped the wheels of government. But gradually affairs crystallized into civilized shape. About 1855, the great possibilities of Marin County as a field for dairying began to be appreciated. Experienced farmers from the East settled in great numbers. Thousands of acres that hitherto had been utilized only for raising bands of wild Spanish cattle, were cut up into tracts of convenient size and devoted to the interests of butter making. Between 1855 and 1863, Marin County, outside of the towns, received the greatest accessions to its population. Some sections were very nearly as populous over 20 years ago as they are to-day. The reason lies on the surface, and is found in an unusual attachment to the soil. Farmers who have established homes in Marin look upon them with almost a father's tenderness. The very thought of disposing of them, either in whole or in part, seems like a sacrilege to the old resident. We could name many who could not be bought or bribed on any terms to sell their farms. A column could be filled with the names of those who arrived within the above period, who subsequently became prominent in public affairs and material prosperity. The first attempt at manufacturing was begun in 1855, by Mr. S. P. Taylor, who constructed and put into operation a paper mill on Lagunitas Creek, of which more will be said hereafter. Like other notable enterprises of all descriptions, it will be mentioned under a distinct head.

Several very ambitious land speculations were set on foot during the early days that did not have a successful outcome. These were principally directed to building up a rival city to San Francisco. One of them was Marin City, occupying—on paper—the entire territory of Point San Quentin. The only tangible result of this enterprise was the location there of the California State Prison. The largest city that ever existed—in the brain of man—was Saucelito. Although it can never realize the dreams of its projector, still, it has become in late years a very lively suburb of the metropolis. California City and Corte Madera City are not to be laughed at—when their maps alone are considered. Several quite extensive settlements in the timber cutting days, as Lagunitas and Corte Madera, have disappeared altogether. The year 1861 was marked by the issue of the first copy of the "Marin County Journal," under the auspices of Jerome A. Barney, son of the above mentioned pioneer. If the writer was the editor and proprietor of the "Journal," as he is of the "Tocsin," he would unhesitating assert that the great progress made by the county since the date of its publication, was due solely and entirely to his efforts. Certain it is, that from that time on Marin began to progress along the right lines. Nearly every substantial improvement of a public nature—roads, bridges, schools, and other public buildings, drainage systems, bulkheads, waterworks, gasworks, and traveling facilities, are things that came after 1861.

In 1863, San Rafael first came into notice as a possible place for suburban residences for persons doing business in San Francisco. The many distinguished friends of Mr. Chas. Fairfax, who never wearied of visiting his beautiful and hospitable home, had given the vicinity a certain reputation, but the entire isolation of the place forbade anything beyond a sojourn for a few days. The establishment of a ferry to San Quentin and a connecting stage line removed this difficulty in a measure. Although the journey from San Francisco to San Rafael was even then long and wearisome enough to satisfy the devil, there were still some who were sufficiently attracted to subject themselves to the great necessary inconvenience of daily trips to San Francisco. Among the first, were Alexander Forbes and Henry Wilkins, with their families, in 1863. S. V. Smith and John H. Saunders followed the succeeding year. J. D. Walker, M. J. O'Connor, G. S. Haskell, Henry McCrea, Adolph Mailliard, Dr. F. A. Holman, Richard Berry, Hall McAllister, and many others, swelled the tide. The movement was important in more than a local aspect. The property owners of San Rafael, seeing a market for their land at figures that had never before been contemplated, were not slow to do their best in the way of enterprise. Hotels were built, the Shorts opened up and improved the fine tract that bears their name, streets were laid out in all directions, and vast efforts made to improve the traveling facilities, resulting first in a turnpike road and subsequently in a short railway to San Quentin. Mark the consequences. A million and a half dollars were added to the county assessment roll, which permitted the construction of many imperative improvements without extra taxation on the county at large, and which justified the people in issuing bonds to build one of the handsomest Court Houses in the State. The existence of the prosperous little town drew the attention of capitalists to Marin. It was one of the main factors that induced the construction of the North Pacific Coast Railroad, now so indispensable to farmer and shipper. It attracted Wm. T. Coleman, with his great capital, liberal ideas, and princely improvements. Much praise is due the little band that braved the horrors of scow and stage to have a suburban residence in San Rafael.

An Active Period.

Perhaps the most active epoch in the county's development was from 1870 to 1876. Mr. W. J. Miller was elected Assemblyman in 1869, and his term proved one of great benefit to the public. Among other useful measures whose passage he secured was one providing for a system of new roads in various parts of the county. Although not completed till a much later date, they were finally of vast value in opening up the resources of the county. In 1872 the present splendid Court House was erected. Bonds were issued for its construction to the extent of $55,000, the county's first funded debt. This year also saw the completion of William T. Coleman's splendid waterworks on Tamalpais that supply San Rafael and San Quentin Prison. The North Pacific Coast Railroad was also commenced in 1872, although it was not completed until three years afterwards. In 1874 the town of San Rafael was duly incorporated, necessitating important public improvements there. Wm. T. Coleman, too, was actively working out his plan for developing his magnificent estate, then recently purchased. All these extensive works naturally carried prosperity with them. Marin was flourishing preëminently, while the balance of California was suffering a season of unmitigated depression.

Dairying.

It may be truthfully stated that the surface has barely been scratched in developing the resources of Marin County. The farmers have hitherto been men of one idea, and that idea is dairying. The county is so admirably suited for this industry, the profits have been so large and uniform, and the process is so slightly exhaustive to the soil, that it is not surprising that the dairy interests have overshadowed all others. Butter making has become almost a hereditary instinct with the people of Marin. The son drops into the father's method of making a livelihood unquestioningly and as a matter of course. The common saying, "Nothing raises a mortgage like a cow," surmounted with a bovine cut, would make a most appropriate crest for the county.

The Assessor's returns for 1885 show that there were 23,101 milch cows in Marin, and probably some few escaped his eagle eye. There were, in addition, 4,310 calves, 4,454 stock cattle, and 36 thoroughbred bulls. Placing the average butter product per cow at the low estimate of 175 pounds per annum (well informed dairymen have assured us that it will largely exceed this), and multiplying by the number of milch cows, we have 4,112,500 pounds of butter representing the yearly output of the county. This is sold in San Francisco at a price that will probably average over 25 cents a pound. The dairymen of Marin have thus a gross annual income from butter alone that will approximate $1,000,000. Other items come in to cancel the expense account. Every dairy has a drove of pigs, which are fed principally on sour skimmed milk, besides poultry of all descriptions. There are 6,716 hogs in the county that the Assessor knows of, and, with the family instincts of these interesting animals, their numbers are rapidly turned over. We know of many dairymen who pay help hire, taxes, and the regular current expenses from sales of hogs and poultry, leaving the receipts from butter clear. The valleys yield an abundance of the finest hay to feed stock during the short transition period from the dry season of summer to the rainy season of winter. Not more than sufficient hay, however, is raised for home consumption. The bottoms also produce immense beets, pumpkins, sorghum, and other garden truck, which is used to mitigate in a degree the monotony of dry food during four months of the year. With these little attentions to her personal comfort, the cow is entirely satisfied. In the East it is necessary to house the cattle during winter in well constructed, hard finished barns, and often the great cold compels maintaining hot stove fires in the stables. In Marin the cows stay out all night during the entire winter, and would consider it an insult to their independence if they were locked up in close, uncomfortable, bad smelling barns.

Pasturage.

The pasturage is entirely of the wild, native species of grass. On the Point Reyes section there is a peculiar growth popularly known as bunch grass from its clump-like form. The roots are very deep, penetrating to the interior moisture of the earth even in the heart of summer. With this and the fogs that prevail almost every morning along the ocean coast, the section very seldom presents the desiccated appearance that marks California during the months of June, July, August, and September. The roots, certainly, never die, and it is from them that the grass is reproduced, rather than from the seed. It possesses an unusual butter-making strength. On Point Reyes there are dairymen who claim to make as high as 250 pounds of butter to the cow per year. The flavor and enduring qualities of this butter have given it a reputation that extends over the whole Pacific Coast. It may be partly due to the skill and intelligence of the dairymen, who are a remarkably able class of men, but climate and pasturage are extensive factors in the results. Certain it is that the advertisement, "Point Reyes butter for sale here," can be found outside the grocery stores for hundreds of miles beyond the place where that butter was made. By special care in the manufacture, and by packing in a peculiar way, it is preserved for months with all the delicacy of flavor that it possessed when fresh from the churn. In the interior sections, the pasturage is largely wild oats, that domestic oats differs from in very slight particulars. It is a rich, luxuriant growth that cattle take to with great avidity, and which yields a return in butter that is almost equal to that from Point Reyes bunch grass.

The cool climate and abundant vegetation of Marin are advantages that other butter producing sections of the State do not possess. The southern counties, like San Luis Obispo, are too warm. The product is apt to run to oil in the working. Other counties possessing a similar climate, are not blessed with open hills and valleys suited to pasturing stock. Hence the butter of Marin commands a very considerably higher price in the San Francisco market than that produced elsewhere. Great quantities are contracted for, year in, year out, by the great hotels at top figures. Large shipments are also made to wealthy families who keep open house. All leading dealers make it a specialty, and by those who can afford to pay a rather stiff price for the article, it is universally sought.

Rentals.

Almost half Marin County is owned by less than a dozen individuals. This vast area is divided into farms of convenient size, stocked with cows, equipped with buildings, horses, etc., and rented. The usual rule is to make out leases for so much a cow. About $25 per cow is near the ruling price, varying slightly with different conditions. Of course, the necessary land for pasturage is included, from 6 to 10 acres to the cow. Rents are usually made in the fall, and are payable semi-annually in advance. It will thus be seen that no very great capital is required to set up in a very moderate dairy business. A man with not more than $1,000 to lay down and a decent reputation in business matters, can make a start with say 75 cows. If he is anything of a manager he can then realize an income that no other class of agricultural pursuit affords. We take it for granted that he pays the current expenses, help hire, etc., as shown above, with the pork and poultry product. All our skillful farmers manage to do this in the average year. The 75 cows will yield nearly 15,000 pounds of butter, which will yield about $3,800 in the San Francisco markets. Deduct $1,875, rent of 75 cows at $25 per head, and we have a balance of $2,000 as the renter's income. The living expenses of ranch life are trifling. There is no house rent, no water rates, no fuel bills, and a very small butcher's account, for the dairyman can produce nearly all his own meat. There is, therefore, not much besides groceries and clothing to purchase, and the greater part of the $2,000 can be put away where it will do the most good. Hundreds of persons in the county can corroborate this statement from their own experience. If there is another department of agriculture that can be counted on for such results from a capital of not much more than $1,000 we should be pleased to hear of it. To maintain the herds, renters are required to raise about 10 per cent of the heifer calves for the landlords. The balance of the increase, no insignificant item, is their own. As the heifers arrive at maturity the older cows are disposed of, so that the herd has constantly a full string of animals of the most productive age.

The transportation facilities of Marin County are extraordinarily good. Almost surrounded by water, with good havens for small craft, traversed through the interior by two well conducted and liberal railroad systems and intersected by a network of public highways that cut up the county like a checkerboard, Marin County has facilities for travel and transportation that are simply and absolutely perfect. There is not a point in the county that is distant as much as half a dozen miles from a railway station or a harbor. Freights, also, are far less than in any other part of the State. Competition by water necessitates a lower system of charges on the railroads than could be expected without nature as an ally. The rates, in fact, are so low that shipments by water have been almost entirely discontinued. The little fleet of sloops and schooners that once scoured the Marin County coast has very nearly disappeared.

The North Pacific Coast Railroad and the San Francisco and North Pacific Railroad, with a splendid ferry service to San Francisco, leave Marin County nothing to desire in this respect unless it may be greater frequency of trips, which will come in good time. We have already devoted so much space to this county that we must leave many things pertaining to the county untouched.

As has been seen, dairying has been and still is the principal resource of the county, but it is a county of large possibilities for the future, and one of the most interesting and picturesque to the tourists in the whole State, and is a favorite resort for campers and picnic parties. Its mountains abound in game, its streams with fish, and lovely sites and situations are everywhere.

San Rafael is the county seat, and contains about 4,000 inhabitants, and is on the whole one of the most beautiful places in the world, and its salubrious climate, its convenient situation for residence of those doing business in San Francisco, its perfect drainage, its excellent water, charming drives, and romantic scenery surroundings all combine to make it one of the most attractive spots in California. The town is lighted with gas, the buildings look neat, and everything has a healthy and prosperous look. There are flourishing societies of every kind. The morals and intelligence of the people are superior. The business of San Rafael is varied, and all the pursuits that naturally spring up in a rich farming and dairy county are well represented. She has fine schools, the different denominations worship in convenient and commodious churches, her streets are lovely promenades, and all her surroundings and adornments unsurpassed.

Saucelito is another beautiful suburban town connected with San Francisco by fine ferryboats, and has many beautiful residences on the hillsides, where many of the wealthy and prominent men of the metropolis make their homes.

In 1884 the assessed value of property in Marin County was $7,899,984, and in 1885, $10,197,475.

In 1880 the census gave the county a population of 14,200; it is now probably 16,000.

It may be said in conclusion that Marin County, with its many attractions and undoubted capabilities, is making steady progress in wealth and population, and is destined to a brilliant future.

MENDOCINO.

Mendocino County is bounded on the north by Humboldt, Trinity, and Tehama Counties; on the east by Tehama, Colusa, and Lake Counties; on the south by Lake and Sonoma Counties, and on the west by the Pacific Ocean, and contains 3,780 square miles.

Mendocino County is a mountainous coast county, its prominent topographical feature being two chains of Coast Range mountains running nearly parallel and separated by the valleys of Eel and Russian Rivers. The headwaters of these streams rise near the center of the county, on opposite sides of a ridge bay lying east and west, Eel River flowing thence northward through Humboldt County to the coast, receiving the waters of many tributaries along its course, while the Russian River flows southward through Sonoma County and drains a smaller basin. Many small streams flow from the western Coast Range of mountains directly and independently into the sea, affording facilities for floating logs, etc., from the mountains and adjoining valleys to the coast.

The Coast Range is covered from one end of the county to the other by a dense growth of redwood, pine, fir, oak, and madrona, with some dogwood, maple, and bay. The tops of the highest peaks, which rise to an elevation of some 6,000 feet, are bare of timber and rugged, and covered only with chaparral.

This region is almost exclusively devoted to lumbering. The eastern range of mountains is almost treeless and is known as the Bald Hills. There is, however, an abundant growth of clover, wild oats, etc., and the region is largely used as a sheep pasture.

The lands of the county suitable for cultivation have been estimated to cover about 900,000 acres, and lie chiefly in the valleys adjoining the two rivers and their larger tributaries; 200,000 acres more are good grazing lands, while the rest of the county area is rugged and mountainous. The chief resource of the county is, of course, its great lumber trade, some 24 steam sawmills being engaged in converting its immense redwood forests into lumber and shingles for the San Francisco market.

It should be written that for the last year or two the county has felt the general depression in business, and the demand for lumber has not been proportionate to the supply which the facilities of the county are prepared to furnish. But during the past year there has been an increased activity in the mills of the county, and increased sales of her timber lands by capitalists who are beginning to have a greater appreciation of their great value in the near future. During the year at least two very large steam mills have been built, one by the Wisconsin Company, at Fort Bragg, and which, by the way, is the first mill built here furnished with the band saws, which are claimed to be an immense improvement on the old circular saws of whatever cut—also one of the largest mills in the county has been built at Pudding Creek by Captain Blair, and will be running to its full capacity probably when this article is read. There can be no question about the future in this county, for, with its immense resources in its great redwood forests, and its many facilities for getting this lumber to a first class market, it must, perforce, partake of a large prosperity. Every acre of its timber land is valuable, and that value is certain to increase, as the demand increases, as it surely will, and the supply lessens, as it must, and the parties who are wise enough to secure control of even a limited amount of these lands is assured of a moderate competence at least for all his future.

Our redwood is beginning to be recognized as the finest lumber in the world by reason of the multifarious uses to which it can be put, from building a cheap shanty to the construction of the most beautiful cabinet furniture, and architectural ornamentation.

But Mendocino County is not only wealthy in her timber lands, for she has thousands of acres of the richest pastures, where are grazed and fattened hundreds of thousands of sheep, and in her valleys are some of the finest farms in California. There are probably at least 70,000 acres of the richest of lands under cultivation where immense crops of the cereals are raised, and her hopyards are extensive, and have been very profitable, although the past year has been an unfortunate one for the hop growers by reason of the low price of hops.

There is no county in the State that has as many private railroads as Mendocino County, there being not less than 13, built by the different mills for transporting lumber from the redwoods to the coast. This county offers exceptional inducements to the industrious settler, and, as has been intimated, there has been quite a large immigration to the county within the last few months. It is difficult, with the data at hand, to give anything like an exact statement of the population of the county, but it is between 12,000 and 15,000, with a prospect of a very considerable increase in the near future, for the Immigration Association says that there are 1,500,000 acres of Government lands in the county, and they will not long go begging for occupants, when they learn of many advantages which these lands offer. The climate is good, for, although the snow falls over a greater part of the county in the winter, yet the cold is never severe, the average temperature for January being about 40 degrees, while the summers are extremely pleasant and without excessive heat, the average temperature in July being about 60 degrees, making the annual mean a very moderate one, and the utmost range between heat in summer and cold in winter of a limited nature, securing a mild and equable climate for the year round. The annual rainfall averages about 30 inches.

Ukiah.

The town was established as long ago as 1856, and it became the county seat in 1859, still occupying that position and having increased steadily and substantially in size during the whole time. It is situated upon the Russian River, in the center of a beautiful and fertile agricultural district, known as Ukiah Valley. It is also in a central position in the county, and is the depot for the export of the wool, dairying, and farm products of the pasture and farming country around. The distance from San Francisco is 121 miles, 90 miles being by rail and 31 by stage from Cloverdale. The climate is healthful, the location pleasant, and the town in every way a prosperous and well built one, the Court House having cost something over $40,000. Five mail routes center here. There are quicksilver mines in the neighborhood, and valuable medical springs of both hot and cold water abound, these springs being of particular value to sufferers from rheumatism, as well as effecting complete cures in cases of cutaneous disorders. The town is in an excellent sanitary condition. The inhabitants number about 1,500, some 500 being voters. Two newspapers are supported, the secret orders are all in a flourishing condition, and the different churches are all represented.

Mendocino City

Is situated on the coast, 55 miles northwest of Ukiah. It is 75 miles by stage from Cloverdale, and is reached also by the North Pacific Coast Railroad to Duncan's Mills, and from there by stage, a distance of 80 miles. Communication with San Francisco is also maintained by steamers and sailing vessels, the distance north from San Francisco being 160 miles. The population of the place is 800, and the principal dependence is the lumber trade, which is extensively engaged in in the vicinity, important quantities being shipped yearly to San Francisco. Mendocino Bay is only a slight indentation in the coast line, and affords an excellent harbor in summer, but is too exposed for a winter anchorage. The Noyo or Rio Grande River empties into the bay near the town site. Fisheries and sawmills are almost equally numerous upon the river and bay, and the district contains good pasturage, in addition to the pine forests. The town is a prosperous one, supporting a weekly newspaper.

Little Lake

Is situated 22 miles from Ukiah and is a town which was laid out in 1878, and has a population already of 300. It is an enterprising little place, the principal street being graded and graveled, and the grounds of the County Agricultural Society having been established near, through the efforts of the Little Lake citizens. The town is in Little Lake Valley, which is some 4 miles in diameter, but is the trading post for some 25 square miles in the vicinity. It contains a hotel, a church, a Post Office, a flour mill, a lumber mill, four general merchandise stores, two stables, a carpenter shop, a drug store, a restaurant, a butcher shop, two blacksmiths, a wagon factory, and two saloons.

Covelo

Is a highly prosperous town, located in the center of a farming district, in the extreme north of the county, and which is 7 miles in diameter in any direction, and is, therefore, called Round Valley. It is a trading center for a region 50 miles in diameter, and has 250 inhabitants.

Cahto

Is 45 miles from Ukiah, on the Cloverdale and Humboldt stage road, and is the distributing point for Long Valley, in the northwestern part of the county, for mails and general merchandise.

Cuffey's Cove

Is a well known shipping point, being on the coast and reached by the Pacific Coast steamers and by trading vessels in summer.

Pomo

Is a small but lively town of 50 inhabitants, being the center of trade for Potter Valley, and distant 18 miles from Ukiah.

Other Towns

Are: Albion, Anderson, Boonville, Big River, Bridgeport, Big Rock, Buchanan, Beall's Landing, Blue Rock, Calpella, Caspar, Christine, Comptche, Caroll, Carper, Central, Cow Creek, Cottonobee, Counts, Coyote, Eel River, Elk Creek, Fort Bragg, Farley, Fish Rock, Gravelly Valley, Galloway, Garcia, Gaskill, Gualala, Hopland, Hermitage, Hot Springs, Indian Creek, Kibesillah, Little River, Low Gap, Lima, Long Valley, Manchester, Miller, Mill Creek, Navarro, Noyo, Ocean, Oriental, Potter Valley, Port Vallejo, Punta Arenas, Rancheria, Redwood, Round Valley, Sherwood Valley, Sanel, Sawyer's, Ten Mile River, Timber Ridge, Union, Westport, Willitts, Weight, Walker Valley, Whitcomb, Whitehall, Williams Valley, Willow, and Yorkville.

The assessed value of real estate in the county is $8,959,070. Of live stock it has 15 thoroughbred horses, 1,611 American horses, and 2,708 Spanish horses; 984 colts, 308 beef cattle, and 8,620 of other horned cattle, including oxen, cows, and calves; 341 mules, 2,274 goats, 18,630 hogs, and about 350,000 sheep, young and old. In many places in the county vineyards do remarkably well, and a great many acres have been planted to vines, and several thousand gallons of wine and brandy are annually made.

Taken altogether Mendocino County is on a substantial basis, and may take her place among the prosperous counties.

MERCED.

Merced County is bounded on the north by Stanislaus County, east by Mariposa, south by Fresno, and west by Stanislaus, Santa Clara, and San Benito Counties, and has an area of 2,280 square miles, divided as follows: San Joaquin Valley, 1,740 square miles (including adobe, 320 square miles); lower foothills, 20 square miles; Coast Range mountains, 520 square miles. The following, concerning the topography, characteristics of soil, etc., is taken from "Agricultural Features of California:"

> Merced County, with its eastern border lying along the edge of the foothills, and its western on the Coast Range of mountains, is divided into two parts by the San Joaquin River, which flows nearly centrally through it, in a northwest course, and to which the surface of the country slopes from either side. The chief stream of the county (besides the San Joaquin) is the Merced River, which, rising among the high Sierra, flows through Yosemite Valley and the foothills of Mariposa County, and westward across the plains of this county, in a valley bordered by high banks for the greater part of the distance, to the San Joaquin River. Dry Creek is one of its few tributaries. Bear Creek, on which the

county seat is located, rises among the foothills of Mariposa County, and in its western course across the valley, flows between high banks for a large part of the distance. On the south of this stream are Mariposa and Chowchilla Rivers, the latter forming the southern boundary line. Besides these, there are numerous creeks and sloughs, all flowing westward, and disappearing in the plains before reaching the San Joaquin River. Similarly, in the western part of the county, there are numerous creeks tributary directly to the San Joaquin, that have their source in the Coast Range, but are of no special importance, only reaching the river in time of flood. The San Joaquin River, in its course through this county, is bordered by a belt of tule lands, reaching from the southern boundary northward nearly to the mouth of Merced River, and having a width of several miles, though lying almost entirely on the west side of the river. The surface of the county (except along the large streams, which are bordered by a growth of oak) is treeless, and presents great variety in its agricultural features. Immediately eastward of the San Joaquin River there is a region of drifting white sand, reaching from the Stanislaus County line in the north, southward nearly to Bear Creek, and eastward beyond the railroad to the point where Dry Creek unites with Merced River, while still eastward along the river the soil changes to a sandy loam, more or less gravelly. The lands of the same region are level, or rather rolling, the soil usually very deep, and has a vegetation of alfilerilla, some clover and tar weed, and occasionally some rattle weed. Wheat is chiefly cultivated, the yield being from 10 to 15 bushels per acre, in ordinary seasons.

The lands of Bear River, from the foothills to its mouth, are chocolate colored clays, more or less adobe in character, while southward to Mariposa River black adobe and hog-wallow lands prevail and contain some alkali in that portion of the region partly covered with sand, which extends from the railroad westward to San Joaquin River. This region is a level plain to the very foothills. South of the Mariposa River the lands of what is known as the Chowchilla region, embracing that creek and the sloughs that are connected with it, are sandy, and, in places, of such a character as to be called "sand mush;" they are also largely alkali and hog-wallow in character, especially around Plainsburg and westward, where they are best suited to pasturage. Clover and alfilerilla (except on the alkali soils, where the salt grass occurs) comprise the vegetation.

In the northeastern part of the county, and east of the sand region first mentioned, the country is rolling and partly hilly, the Black Rascal hills being embraced in a belt of black adobe, hog-wallow, and gravelly lands reaching from Stanislaus County a little southeastward to Mariposa River, south of Bear Creek, its continuity broken by the sandy border lands of the two rivers; its width east and west is from 1 to 2½ miles. The hills are from 100 to 200 feet in height, and are capped with about 25 feet of red gravelly clays, while on their sides and in the valley are the adobe lands, in whose swales, as well as in the creeks, there are cobblestones. This belt passes about 6 miles northeast of Merced, the county seat. To the eastward of the belt, and south of Merced River, the valley lands are red and gravelly to the foothills.

The Merced River Valley, which at Hopeton is about 4 miles wide, is bordered on the south by a line of hills some 50 or 60 feet above it, which extend westward, gradually falling in elevation, nearly to the railroad at Cressy. The adobe lands mentioned occupy the landward slope of these hills, and are found to be underlaid by a whitish, fissured claystone, sandy and ferruginous, easily cut, and used for building low walls. The lands of this river valley are a sandy loam, interspersed with underground gravel ridges, which in many places spoil the lands for farming purposes. The soil of Dry Creek is light and reddish, very deep, and yields 25 or 30 bushels of wheat per acre. The uplands north of Merced River are sandy and in part more gravelly than on the south, and will yield from 20 to 25 bushels of wheat per acre. Merced Falls is at the border of the foothills region, and here, as well as northward, are found partly metamorphosed slates standing almost vertically on edge. The foothills are sparsely covered with an oak growth and their soils are chiefly red, gravelly, rocky, and rather stiff.

The crops of the county are chiefly wheat and other small grain. Cotton is planted in the Merced River Valley quite extensively, and grows from 3 to 4 feet high, yielding an average of 1,200 pounds of seed cotton per acre, 100 pounds of which make 30 pounds of lint. The crop is irrigated once, usually in June; a later time would cause much new growth, while another irrigation causes the plant to run too much to weed.

The Robla Canal, carrying water from Bear Creek, is 12 miles long, and is said to have a capacity of 120 cubic feet per second. The Farmers' Canal takes water from Merced River, 3 miles below Merced Falls; thence its route lies along a rolling sidehill, through a tunnel 4,000 feet long, a distance of 6 miles, to Canal Creek. The bed of this creek carries the water for 13 miles further, and thence it is distributed principally on the plains between the river and Town of Merced.

Merced County is essentially an agricultural county, and much of it is held in large tracts, and large farms are rather the rule than the exception, and gang plows, harvesters, and reapers, and, in fact, all of the improved agricultural machines by which large tracts may be put in and the crops secured at the minimum cost are in almost universal use.

These large counties with a large proportion of level land within their borders are peculiarly favorable for this kind of what may be called speculative farming, where everything is staked on the chance of reaping a large crop of wheat or barley. Merced County has a good deal of this kind of farming, where large capital in money or credit is necessary, and it has had one good result at least, and that is successful inauguration of extensive irrigation schemes that has converted thousands of otherwise barren lands into fertile farms.

The immigration to Merced County has been somewhat limited of late years because the owners of these large bodies of land have shown an indisposition to cut them and put them on the market for the benefit of small holders. There are hundreds on hundreds of acres in the county under consideration where oranges and lemons, and the finer varieties of grapes, and, in fact, all the fruits and nuts successfully cultivated in Los Angeles and adjoining counties, can be raised with profit, and the time will surely come when extensive orange orchards and vineyards will be planted in Merced County, and she will be thickly populated. Even if the present owners refuse to sell in their lifetime, death will inevitably come, and as there is no law of entail in this country, these large tracts will follow a natural process of disintegration, and the waters of her great irrigating canals will be utilized by small farmers, and gang plows and vast herds of cattle that now roam her plains will give place to the man content to run one plow, box his own oranges, make his own raisins, and run his own wine press. It will be well for the State at large when this time comes.

The principal towns are Merced, the county seat, 140 miles from San Francisco; Plainsburg, Snelling, Hopeton, Merced Falls, Livingston, Los Banos, and Central Point. The town of Merced is situated on the line of the Southern Pacific Railroad, and contains a population of between 3,000 and 4,000 people, and is steadily growing. Merced suffered severe loss by fire last year, property to the amount of $125,000 being destroyed: but the energy of her citizens has repaired the losses, and real estate has steadily advanced. The real property of the whole county has appreciated, the assessable property of 1885 amounting to $12,114,974, as against $8,250,000 for 1884, being an increase of very nearly $4,000,000, which is the best evidence of the development of her resources. At Merced Falls, on the Merced River, there is water power capable of running a vast amount of machinery, and here there are large woolen mills turning out goods of superior quality in large quantities. In 1885 over $250,000 worth was manufactured, which found a ready market.

As has been already stated, cotton of good staple has been grown in Merced County, but we imagine that the time is somewhat distant when this or any other county in California will successfully compete with the cotton lands of the South. It only goes to show, however, the varied capabilities of a magnificent county.

In giving the products of the counties we rely upon the Assessors' reports, but these are too often so loosely made up as to afford only an approximate guide to the actual resources of the county, and must not be too implicitly relied upon. From the best information at hand, and for the purpose of showing the relative rank of the county, we placed the inclosed lands of Merced County at 220,338, of which 203,080 acres are tilled. In wheat, say 168,549 acres; barley, 15,154 acres: rye, 8,500 acres: corn, 680 acres, with about 9,000 acres sown for hay.

Our live stock, horses of all classes, young and old, 5,496: horned cattle, 14,330: mules, 2,807: goats, 804; hogs, 7,337; and of sheep about 200,000.

The population of the county may be put down at 8,500, inclusive of Chinese.

MONO.

Mono was organized in 1861, with Aurora, now included in Esmeralda County, Nevada, as the county town. It is a long and narrow county, its length lying along the boundary line between California and Nevada. It contains 4,176 square miles, all but 80 of which are still Government lands, the average value of land, however, being $3 or $4 per acre.

Boundaries.

The length of Mono runs from northwest to southeast, the State of Nevada, or rather the boundary line between that State and California, bounding it on the north and east. Inyo County is on the south, and Fresno, Tuolumne, and Alpine on the west.

Topography.

The western portion of the county lies among the Sierra Nevada Mountains, the heights being clad in snow, and the slopes of the range covered with forest trees. Among the highest peaks in the county are Mt. Dana, 13,627 feet high; Mt. Lyell, 13,217 feet high, and Castle Peak, 13,000 feet high. Among the mountains in the western part, particularly in the vicinity of Bridgeport, to the north, are a large number of valleys, which constitute the agricultural or cultivated lands of the county.

The eastern portion of the county, which is usually spoken of as a strange, mysterious country, is of a desert-like, volcanic character, abounding in salt pools, alkali, and volcanic table lands, the characteristics of this portion of the county being significantly indicated by some of the local names, such as Hot Springs, Geysers, Sulphur Springs, Black Lake, Soda Pond, Volcanoes, Obsidian Mountain, Deep Cañon, Volcanic Table-land, Red Crater, Adobe Meadows, and Oasis.

Mono Lake.

Mono Lake, situated in the center of the county, is about 15 miles long by 10 miles wide, its waters being a somewhat unusual compound, various chemical substances being found in solution in them. This lake has the appearance of having once been the scene of volcanic action; the country surrounding it, as Bodie, Aurora, and Benton, abounding in minerals. A number of volcanic cones, having extinct craters, lie to the south of the lake, and a great portion of the formation of the district may be considered volcanic; debris, consisting of porphyry, granite, limestone, and a remarkably pure obsidian, while deposits of lava are found at Aurora and Table Mountain. The fires of the ancient volcanoes may not yet be all extinct, for upon the islands in the center of the lake jets of hot vapor escape, and there are a number of boiling springs of water.

The great bluffs and rocky ravines of the Sierras come almost to the western shore of the lake, while upon the western side salt deposits and lines of drift-wood mark the plain, showing very distinctly what were the former more extensive shores of this sheet of water. For upon the bluffs of the western side are water marks, which make it seem highly probable that the waters were once almost a thousand feet above their present elevation, spreading out over the plains to the east to form a great inland sea.

The lake receives a number of small streams, but is without a perceptible outlet. Owens River in the south, which takes its rise in the high peak of the Sierras, Mt. Kitten, and Walker's River, in the north, being the principal streams in the county; the one passing through the southern part of the county into Inyo, the other continuing its course, after rising in Mono, to the State of Nevada.

Of the counties tributary to San Francisco, there is probably none deserving of more recognition than Mono. Notwithstanding its isolation and the effect on the whole county of the depression that has most materially touched Bodie, the progress in those directions where the solid and permanent prosperity of the county are concerned, has shown no signs of retrogression during the past year.

Even Bodie has not fallen away nearly as much as has been represented. Fifty five-stamp mills are almost constantly at work on the low grade ores extracted from its mines, among the most prominent of which are the Syndicate, Bodie, Consolidated, Standard, Mono, Bulwer, New Standard, etc. The placer mining enterprise at Monoville is showing very good results, and the Patterson mining district, which is situated 80 miles south and 4 miles west of the old Carson and Aurora stage road, and 2 miles west of the line dividing Mono, are paying profitable returns for the capital and labor invested. North of Bodie a good deal of development has been done in the way of quartz mining, besides the Patterson mines. The mineral belt, lying entirely in Mono County, is almost entirely confined to the Sweetwater Mountains, a continuation of the Washoe Range. The belt is about 7 miles in length by about 3 in width. The formation is porphyry, with occasional ribs of syenite and diorite.

New explorations have been made within the past year, with good results so far. The Homestake, Poverty, Silverado, Lady Hayes, Star, Lookout, and Bowlder claims have made good returns so far as tested. The Northern Comstock has the greatest width of outcrop, ranging from 10 to 40 feet.

In agriculture, Mono must take a back seat among the counties of California, the altitude of the county being so great as to effectually prevent the ripening of cereals to the same perfection as is attained elsewhere. The western part of the county is admirably fitted, so far as soil is concerned, for agriculture, but in the majority of cases the settler contents himself with stock raising and dairying, crops being a very unreliable sort of thing in the county.

Timber is plentiful, and has been worked to some considerable extent by the Bodie and Benton Railroad and Lumber Company. That company has a line of road 35 miles in length, connecting its mill with the town of Bodie. The mill has a capacity of 100,000 feet per diem, if worked to its extreme capacity.

There is some talk of connecting Bodie with Carson, Nevada, by the extension of this road or with the Carson and Colorado road, which passes near by. In either event the result will be very decidedly in favor of Mono County.

The assessed value of the real estate, lots, and improvements of the county in 1885 was $912,729.

MODOC.

Modoc County was created by an Act of Legislature in 1874 out of the eastern portion of Siskiyou County, and derived its name from the Indian tribe of Modocs. It is the extreme northeast county of this State, with Oregon for its northern boundary. It extends eastward from the celebrated Modoc "lava bed," south of Tule Lake, to the Nevada State line, and is nearly 100 miles in length and 60 miles in width. The topography of the county is a succession of mountain ranges and valleys, and is principally drained by Pitt River, which has its outlet in the Bay of San Francisco. The lava bed section, at the northeast corner of the county, is a succession of gulches and crevasses, which range from a few feet to 100 feet in width, and many of them are 100 feet deep; some have subterranean passes, which lead for miles under the rocks. This broken country extends in a belt eastward to Goose Lake. This lava section of the county has no arable lands, and it is fit only for grazing purposes. It is a vast plain of table land, and in some places it is sparsely covered with juniper.

The county has an area of 4,260 square miles, of which 3,685 square miles are Sierra mountain lands, Surprise Valley having 400 square miles, and the other valleys some 175 square miles.

The agricultural lands suitable for cultivation are all in these valleys, of which Surprise Valley is the most important. It lies on the extreme east of the county, extending from north to south, and includes in its eastern side three lakes, whose lengths are respectively 16, 20, and 15 miles, with widths of from 3 to 5 miles. These lakes have no outlet, and are sometimes dry by evaporation. The length of the valley is about 60 miles and width 15 miles, and it is skirted on two sides by lofty and timbered mountains. It is watered by numerous streams, and it is covered with clover and grasses. Its soil is a rich, black loam, occupying a strip from 2 to 6 miles in width, whose surface gently slopes toward the lakes.

The valley of Goose Lake lies mostly on the eastern side of the lake (which is 30 miles long and 15 miles wide, extending into Oregon), reaching back some 4 or 5 miles, and is watered by numerous small streams. Its lands are good for farming purposes, being covered with bunch and other grasses, and are partly under cultivation, yielding crops of wheat, barley, oats, etc.

The adjoining mountains, Warner's Range, are heavily timbered with cedar and pine, while on the hillsides and around the lake is an abundant growth of wild plums. On the western side of the lake there is a narrow strip of valley, devoted mostly to dairying. Big or Round Valley, on Pitt River, in the southwestern part of the county, and reaching into Lassen County, is 30 miles long and 18 miles wide, and is mostly covered with sagebrush. Its soils are varied in character, from red clays to dark loam and gravelly lands, and spotted with alkali tracts. Surrounding the valley are several creeks, whose rich bottom lands are to some extent under cultivation. Stock raising is the chief industry. Since beginning this article, our attention was attracted to a letter in the San Francisco "Chronicle" from a very intelligent and impartial correspondent, dated from Alturas, Modoc County, May 5, 1886, and we cannot do better than to give it entire here as a very full summing up of the general character and resources of the county with the latest statistics:

> The last month has been spent by your correspondent in Modoc County, in an endeavor to see and learn of its resources, its people, and its productions—a by no means easy task when we consider that the county is, speaking roughly, 70 miles square, giving an area of 4,900 square miles. The face of the county is cut up considerably by the Sierra and spurs of that range, whose sloping sides furnish well nigh inexhaustible pasturage, and whose snow capped summits are the source of numberless streams, which, in their course to the sea, water plains at their feet, and render them habitable and marvelously productive of everything in the line of vegetables, grain, and many kinds of hay, though they lie at an altitude of from 4,600 to 5,000 feet. The county is growing rapidly, and now has a population of about 7,500 or 8,000, exclusive of the Indians, of whom there are several hundred here. The principal industries are cattle raising, breeding of horses, and dairying. There is also some plain farming done, and if one may judge from the enormous potatoes your correspondent has seen here, to say nothing of the monstrous squashes, beets, fine plump grain, etc., it must pay well. The apples grown in Surprise Valley are the superior of the best eastern apples to be obtained in the market, and I am informed that cherries, plums, gooseberries, strawberries, blackberries, currants, raspberries, and many other varieties of small fruits are grown there, as well as in other parts of this county.

According to the assessment roll of 1885, there is in Modoc County taxable real estate, other than town lots, 196,631 acres, valued at $778,815; the improvements on the same, being valued at $330,673, gives a total valuation of $1,109,488. Besides this there are town lots with their improvements valued at $174,589, and real estate assessed to others than the owners worth $20,929, giving a grand total of taxable real estate to the value of $1,305,006. In addition to this there is still considerable Government land to be had in the county and much already occupied by actual settlers, all of whom appear to be doing well, and are making substantial improvements on their claims. On the first of March last there were owned in Modoc County 5,960 head of horses, worth $256,748, with 1,452 colts, worth $26,580; 500 head of mules, valued at $17,978; cattle, 24,790 head, worth $342,254, and 5,870 calves, valued at $69,534. Of sheep, there were 16,856, worth $28,759; goats, 881, valued at $2,084; and 5,446 hogs, worth $12,559. These, taken together with the real estate and other taxable property, gave a total assessed valuation of the county, for 1885, of a little more than $2,600,000—an increase of over $100,000 since March 1, 1884. Doubtless the coming assessment for 1886 will increase the amount to nearly $3,000,000, if it does not quite reach that figure.

An Energetic Community.

The people of Modoc County are energetic, wide-awake, and thrifty, and for the most part have worked their way up to affluence. The farms are well kept, and the huge barns and sheds for stock remind one of the dairying districts of New York State.

The great want of this part of the State is railroad communication with the outside world and a market for its produce. The people here are hoping for an extension of the California Northern from Oroville, or a narrow gauge from Reno. The business men of San Francisco should see to it that the trade of this rapidly growing and wealthy section is not diverted from its natural outlet and given to a city of another State. There were sold during 1885 from the herds of this county, according to reliable information, upward of 20,000 head of beef cattle and as many head of horses, to say nothing of the sheep, poultry, and products of the soil. With a good railroad these sales would be largely increased, for the neighboring mountain sides give a boundless range rich in nutritious grasses, while the valleys furnish a well nigh inexhaustible supply of the best of hay. Given a railroad, Modoc County would soon become one of the wealthiest in California. Its trade should go to San Francisco, and a railroad giving it communication with that city would pay from the beginning. The tillable land of Modoc County is equal to any in productiveness, and is easily cultivated. Thousands of bushels of potatoes are raised here, and tubers weighing over four pounds are not uncommon. Modoc's potatoes have a State reputation. Other crops do as well, but want of a market causes but little more wheat and barley than is needed for home consumption to be raised. With a good market Modoc County would raise millions of bushels of grain. Surprise Valley, 25 miles northeast of Alturas, abounds in orchards, and raises large quantities of apples, said to be the best produced in the mountain districts of the State. The county has many young orchards which will come into bearing in a few years, when Modoc will assume no inferior position as a fruit-producing county. In addition to apples, an abundance of peaches, pears, cherries, and small fruits are grown—strawberries sometimes attaining the proportions of a good sized hen's egg. Fact.

Plenty of Water.

But little irrigation is necessary, as the county is well watered by the Pitt River, which has its source within the confines of the county, and numerous other streams which come down from the mountain sides. Good water is obtained at a depth of from 6 to 30 feet, while good springs are numerous. Modoc County has several hot springs, said to possess wonderful medicinal properties, curing rheumatism and skin diseases with marvelous rapidity. As yet, however, these hot springs are but little resorted to, owing to the lack of suitable improvements and accommodations. When they are fitted up, and put in proper shape, we may look for an influx of invalids, gouty and rheumatic cripples, and pleasure seekers. The mountains are clothed in timber of various kinds, enough to furnish the inhabitants of the county with wood and lumber for hundreds of years to come, and though there are no mines in the county, pieces of rich ore have been picked up in many of the watercourses, and prospectors are endeavoring to find out where they came from. Should their home be discovered, look out for a mining boom, for the chunks aforementioned assayed very big, one of them to the tune of $25,000 to the ton. The land known as sagebrush land is being taken up by homesteaders, and where properly cleared, irrigated, and cultivated, raises enormous crops of timothy, and grain hay, or potatoes. In fact, Modoc County seems to be the natural habitat of this useful vegetable. Think of five tons from four sacks, and the crop not cultivated—just planted, and left to take care of itself. There are still thousands of acres untaken, that are capable of this. The man who comes here with a small capital, and a willingness and expectation to do some hard work before he reaps a harvest of $20 gold pieces, can but succeed, and will eventually receive the reward of his works, and make himself a home worth having.

Another industry that could be followed with profit in Modoc County, is dairying. The wild grasses even produce a splendid quality of butter or cheese, which latter finds a ready market at 18 cents per pound, here in the country. There is plenty of room for dairies here, and but little prospect of the business being overdone for many years yet. Money is scarce, and commands a rate of 1½ per cent a month, and the security must be gilt-edged then. There is no bank at the county seat, Alturas, and so far as I can see, no one does a banking business there.

The Town of Alturas.

Alturas, the county seat of Modoc County, is situated on the Pitt River, near the confluence of the north and south forks of that stream. It has 500 or 600 inhabitants, and is growing rapidly. In addition to a number of stores, there is a fine grist mill, owned by E. Lauer; a planing mill, or sash and door factory, run by George McKay; a brewery, operated by Peter Ivory, and the usual number of blacksmith shops, livery stables, saloons, etc. There are also several good hotels. The Congregationalists have a fine place of worship, while the Catholics are erecting a fine stone church, and the other denominations will soon follow suit. The town has a fine two-story frame school house, where about 150 children attend school. Two departments will be added the coming season, and the school graded. The county buildings consist of a Court House, and jail, and a fire-proof County Clerk's office. The Superior Court-room is a model of convenience. There is one newspaper published at the county seat, the "Modoc Independent," D. C. Slater, editor and proprietor. It is a neatly printed and ably edited journal. Alturas also boasts of a brass band, and it is a very good one.

In conclusion, I would say to the homeseeker: If you want to raise cattle or horses, run a dairy, or raise vegetables, and enjoy good health while you make money, come to Modoc County.

MONTEREY.

Monterey County is one of the largest counties in California, having an area of 3,600 square miles, or over 2,250,000 acres of land. The boundaries of the county are as follows: On the north by Santa Cruz County and Monterey Bay, on the east by the counties of San Benito, Fresno, and Tulare, on the south by San Luis Obispo County, and on the west by the Pacific Ocean.

The topographical features of the county are rough mountains and broad plains; gently rounded hills and small valleys. Three principal mountain ranges pass through it from northwest to southeast; the Santa Lucia, running parallel with the coast line; the Palo Scito Hills or Sierra de las Salinas, at the foot of which the Salinas River flows; and the Gabilan Range, commencing in the county on the east. Besides these, there are spurs, which cramp most of the valleys into comparative insignificance. The region embraced in the hills is but poorly supplied with water, but where irrigation has been practiced, a semi-tropical luxuriance of growth is the result. In this county are found numerous mineral springs, the most important of which are the Passajara, which were known of and visited by the Indians before the settlement of the county, and are now widely celebrated for their curative qualities.

The resources of Monterey County are agricultural, pastoral, and mineral, agriculture being carried on in the three valleys—Carmelo, Salinas, and Pajaro. The Carmelo Valley being south of Monterey, and situated on the bay of the same name, is about 15 miles long, and has an average width of 2 miles. The chief productions are potatoes, beans, barley, hogs, and dairy produce. The Salinas Valley, embraced by the Gabilan Mountains on the northeast, the Santa Lucian Range on the southwest, extends southward 100 miles, with a width from 3 to 15 miles, and contains an area of more than 500,000 acres of land. It is drained by the Salinas River, which traverses the valley in a northwesterly direction and discharges its waters into Monterey Bay. The river has a length of over 200 miles, but is unnavigable. This valley, within the last few years, has proved itself to be one of the finest agricultural districts in the State. The land may be divided into three classes: first, the heavy bottom land; second, the table land; third, the upland, along the foothills on either side of the valley. On the bottom lands, the average crop of wheat per acre may be set down as 40 bushels, and of barley, 65.

The table lands produce rye, oats, wheat, barley, and flax; the average yield of wheat being about 30 bushels, and of barley about 50 bushels per acre. The upland which lies close to the base of the mountains, produces wheat, barley, oats, and rye, and here also are located some of the finest dairies in the State. Wheat and barley are the staple productions of the Salinas Valley, but, besides these, most of the other cereals as well as vegetables and many of the semi-tropical fruits are produced.

The Pajaro Valley is located in the northwestern part of the county, and extends across the Pajaro River into Santa Cruz County. The soil productions and climate are similar to those of the Salinas, from which valley it is separated by a low range of hills.

Stock and sheep raising are prominent interests in Monterey County, especially in the mountainous portions and the upper Salinas Valley, where thousands of cattle, horses, hogs, Angora goats, and tens of thousands of sheep are raised.

Monterey, as an agricultural county, ranks among the first in the State. It is connected with San Francisco by the Southern Pacific Railroad, which extends, via Salinas, to Soledad, a distance of 143 miles. From this terminus of the valley, the coast line of stages runs to Paso Robles. Besides this inland communication, there are two lines of coast steamers—one to Moss Landing at the mouth of the Salinas River, and the other to Monterey.

This dreamy old town of Monterey lies at the southern extremity of the bay of the same name, 80 miles by sea from San Francisco. It is protected from the swells of the ocean by Point Pinos, which juts out 4 miles northward. The bay is a broad and deep indentation in the coast, being 19½ miles wide from Point Pinos to Point Santa Cruz. The harbor is capacious and safe, though not too well protected against severe north and southeast winds. The bay was discovered by Cabrillo, in 1542, and surveyed in 1602, by Viscanio, by whom it was named in honor of the Count of Monterey, then Viceroy of Mexico. In 1770 the site was occupied by the Jesuit Missionaries, and from that date it has occupied an important place in the history of California. With the exception of San Diego, its settlement is the oldest on the coast, and it has been the capital under Spanish, Mexican, and American rule. Here, on the seventh of July, 1846, the portion of country now comprising California, Nevada, New Mexico, Utah, Arizona, Wyoming, and Colorado, was taken possession of as part of the United States, by Commodore Sloat. In September, 1849, a convention was held here to prepare a Constitution for the State of California, at which the capital was removed to San José.

Monterey is a place of quietness, ease, and pleasure. The Mexican style of the town's architecture, the ancient Mission, the ruins of the old Presidio, the loveliness of the climate, the romance of a past life, the beauty of the scenery, all combine to render this a most attractive spot. Its spirit of *dolce far niente* has been somewhat intruded on in late years by the establishment of whaling stations, and, still more recently, by the abalone fishers. The export of dried fish amounts annually to 220,000, the greater part of which is sent to San Francisco. Until 1872 the county seat was here, but it was then moved to Salinas, which is 117 miles from San Francisco, 225 miles south of Sacramento, and situated on the Southern Pacific Railroad. The Salinas Valley is here broad and fertile, and this is regarded as the central trading point. From the stage station of 9 years ago, Salinas has risen to be an important and populous city of 4,000 inhabitants, with its city officers and Common Council, its Board of Education, gas, water, and fire companies, macadamized streets, and everything pertaining to a prosperous and busy town. To these, should be added, Sherwood Park, a beautiful public resort of 60 acres, the gift of

Eugene Sherwood, the Court House and other public buildings, which are handsome and substantial property. The journals of the city are the "Index" and the "Democrat," published weekly.

Castroville

Is located on the Southern Pacific Railroad, 2½ miles from Moss Landing, 15 miles northeast of Monterey, and 8 miles north of Salinas City. It has a population of about 800, possesses good school facilities, three teachers being employed, and has two churches; also, lodges of Odd Fellows, Masons, and Good Templars. Among other establishments the town has a flour mill and a weekly newspaper, the "Argus." The town is immediately surrounded by fine agricultural lands, well watered, while to the east of Castroville, about 3 or 4 miles distant, there are large tracts of grazing and timbered land and land suited to the growing of fruits and vegetables. The average yield of the lands adjacent to town is, of wheat, 30 bushels per acre, and of barley, 50 bushels; 100 bushels of barley per acre have been raised in some cases. The health of the town is exceptionally good and the climate mild and healthful.

The other towns and precincts of the county are Alisal, Bembe, Buena Vista, Castroville, Carrolton, Carneros, Chalone, Catarina, El Sausal, Franklin, Fulton, Gonzales, Glorio, Indian Valley, Jacks, Lindley, Long Valley, Mountain, Natividad, Oak Grove, Priest Valley, Peach Tree, Pleito, Rincon, Red Rock, Springfield, Santa Tie, Santa Rita, Sycamore Spring, Shearer, San Miguel, Washington, and Warm Spring.

The population of the county is probably at the present time between 14,000 and 15,000, with the prospect of a goodly increase during the year 1886, as there is a large amount of Government land in the county (some 600,000 acres according to the Immigration Association), and the attention of settlers being attracted thereto on account of the forfeiture of the grant of the Pacific Railroad.

The total amount of property assessed in 1885 foots up $11,328,917, an increase of $190,502 over that of 1884. From the latest authoritative data we have, we find that Monterey County has 175,000 acres of inclosed land, of which about 150,000 acres are under cultivation, producing 2,175,960 bushels of wheat, 610,250 bushels of barley, 33,510 bushels of oats, 36,500 bushels of corn, 14,500 tons of hay, and 726 tons of potatoes. She has 3,235 horses (American), and 5,095 Spanish horses; 15,000 head of horned cattle, 950 goats, 4,583 hogs, and about 30,000 sheep.

NAPA.

Napa, one of the loveliest counties of California, is bounded on the north by Lake, on the west by Sonoma, and on the east and southeast by Yolo and Solano. The southern extremity, a mere tip of land, touches the Bay of San Pablo, and just saves Napa from being classed among the inland counties. Napa is almost entirely hedged in by various spurs of the Coast Range, the southeastern portion only—that adjoining Solano—being open. Besides these there are ranges which divide the county into as many fruitful valleys. The hills are romantic in scenery, and peculiar in geological formation, whilst the valleys are amongst the most lovely and fertile in the State. The principal valley gives name to the county, and extends, with slight interruptions, from San Pablo Bay, on the broad estuary of Napa Creek, up to Calistoga, a distance of 40 miles, with a breadth of from 1 to 6 miles. The creek flows its entire length, there being hills shutting it in completely. The soil is exceedingly fertile, the climate delightful, and altogether this is one of the many rich spots that help to make California a great agricultural State. The Berryessa Valley, in the northeastern part of the county, contains about 30,000 acres, and is simply an immense park, whilst the Pope and Chiles Valleys are similar though smaller localities. Up the Napa Valley the California Pacific Railroad has built a branch line, running from the junction in the extreme southern part up to Calistoga, a distance of 35 miles.

Napa is much distinguished for its medicinal springs, those of Calistoga, White Sulphur, and Soda being the most noted. Near these, villages have sprung up, and extensive hotels have been built, which are thronged every summer by the crowds who seek health and pleasure. The whole section bears evident signs of volcanic disturbances; and Mt. Helena, which rises to a height of 4,343 feet, though now quiescent, was undoubtedly at one time an active volcano. The warm slopes have been taken advantage of by the grape growing, a culture which largely helps to make Napa rich.

Though generally looked upon as an agricultural county, there was a probability for a time that Napa would take a prominent place amongst the mineral districts. A rich quartz vein was found in 1873 near St. Helena, which first created an excitement. Then silver was found in the neighborhood of Calistoga. Quicksilver has been found in various parts of the county. There are deposits of iron in the Chiles Valley. Excellent building stone is quarried on the Putah Creek. Water-lime cement comes from Napa Valley. There is coal near Monticello, and metals and minerals everywhere. Still, agriculture is ahead. The developments of the precious ores have not been astonishing, and the mining interest has taken a back seat.

Napa City, the county seat, is situated at the head of tide water on the Napa River, which to this point is navigable for vessels and steamers of light draught. The Napa Valley branch line, already referred to, runs through the town, and steamers ply between it and San Francisco. The town is in the center of the valley of the same name, with pleasant surroundings of hills and plains, of oak covered knolls and cultivated fields, of handsome cottage homes and fruit laden orchards. The bay breezes reach here and make the climate perfect. Napa knows no winter. These sanitive and pleasant conditions have caused its selection as the site of the Branch Insane Asylum, which has been completed at a cost of over $1,000,000. It is located about 2 miles from town, on a slight elevation. The schools of Napa claim high rank, there being, besides the public schools, four first class seminaries and colleges for the education of girls and boys. The population is steadily increasing, and as the business of the county centers here, and grows every year, Napa will grow too. Two newspapers are published here, the "Register" and "Reporter." It has a population of about 4,500.

Calistoga lies 28 miles northwest of Napa City. It was for years one of the most fashionable resorts on the Pacific Coast, and still holds its place amongst the numerous rivals that have recently sprung up. It is beautifully situated at the head of the Napa Valley, and is distant 64 miles from San Francisco. The vineyards, wine cellars, springs, and mines of Calistoga all combine to make it a place of importance.

St. Helena is the center of a thrifty and prosperous farming and wine growing district, and of necessity partakes of the characteristics of that community, which gives it an air of busy life and industry; has about 1,600 inhabitants; is situated 18 miles from Napa City, and 60 miles, by way of the California Pacific Railroad (Napa Branch), from San Francisco. The White Sulphur Springs are in the neighborhood, but a short drive from St. Helena. The following towns and precincts are also found in Napa County: Atlas Peak, Buchanan, Berryessa, Bennett, Carneros, Chiles, Cherry Valley, Capello Valley, Chiles' Valley, Conn Valley, Cinnabar, Franklin, Foss Valley, Gondon Valley, Howard, Harmony, Hardin, Howell Mountain, High Valley, Jefferson, Liberty, Lodi, Lone Tree, Mountain, Oakville, Oak Grove, Oak Knoll, Pope Valley, Putah, Redwood, Suscol, Soda Cañon, Salvador, Sulphur Springs, Spring Mountain, Summit, Silverado, Tucker, Upper Pope Valley, Vineland, Worden Valley, Yount, and Zem Zem.

A careful review of the progress of Napa County for the past year shows many items of interest.

While, in common with California, it has felt the effects of rather dull times, yet considerable advances have been made in various ways, and the present year bids fair to be one of the most prosperous in its history.

Many new residences have been built throughout the county, several of which are elegant as well as substantial.

The small tracts into which many large farms have been divided during the past two years have nearly all gone into the hands of actual tillers, and are becoming attractive, productive homes. The wine interests of the county have brought a large number of foreigners—practical vineyardists—here, but they are an industrious class, nearly all of whom came here with some capital for the purpose of permanent residence.

There are yet some large ranches, the land of which is well adapted to fruit and vine raising, that may be cut up into small places for settlers, and they can be bought at figures which make it a good investment for those wanting homes. A large number of acres were set during 1885 in new vines of the most improved and choicest varieties, and we believe that in five years' time Napa County will produce 10,000,000 gallons of wine per annum.

Nearly all sections of the county appear to be just as well adapted to fruit raising as to vineyards, and very many are turning their attention to that industry. A fruit canning and drying company has recently been incorporated here, and a large part of its capital stock has been subscribed, so by next season there will be a home market for all of our fruit products.

Sheep raising is not very largely followed, but there are about 35,000 sheep kept in the foothills and mountains on lands that are not tillable, and their product annually is about 200,000 pounds of choice wool. The Napa Woolen Mill has been incorporated during the year and is in operation, doing a splendid business.

The population of the county in 1880 was 12,264, and has increased about one third since, being about 16,500 now.

The total assessed value of property for 1884 was $11,015,533, and for 1885 it was $11,510,237.

There were 23,550 acres sown to wheat, producing 275,000 centals; 2,993 acres to barley, producing 41,000 centals; 1,888 acres to oats, producing 29,000 centals; 1,031 acres planted to corn, producing 18,500 centals; and 6,578 acres sown for hay, producing 11,000 tons.

Of the vines in the county, 1,557 acres are one year old, 2,485 acres two years old, 3,100 acres three years old, 2,338 acres four years old, and 4,710 acres five years old and upward. Only the four and five-year old vines yield much, and the product this year is about 2,750,000 gallons, being only 51 per cent of the crop of 1884.

The total value of products for 1885 was about $1,350,000, or about $800 each for every man, woman, and child resident in the county. The value of the products in 1884 was about one third more than this.

NEVADA.

Nevada County is bounded on the north by Yuba and Sierra, east by the State of Nevada, south and east by Placer, and west by Yuba. Its area is 1,026 miles, or about the size of the State of Rhode Island. There are few parts of the world that can compare with it for variety of scenery or climate. While some portions of it have an elevation of 8,000 feet, and are covered with snow the greater portion of the year, the lower districts are scarcely above the ocean's level, and are seldom visited with snow storms or frosts. A number of clearly defined channels extend lengthwise of the county, and along their beds proceed the streams that find head in the Sierras. They are crossed by several high ridges at intervals, the main ones running at right angles with the mountain chain that extends along the eastern boundary. Of course there could not exist in a section like this, which is so diversified by cañons and mountains and streams, any extensive valleys of arable land. Only a few hundred acres here and there are found. The entire soil is of a reddish ferruginous ochre, or gray color, and consists of sidehill or table land. All of this land is highly productive when properly tilled, however. The sheltered depressions, especially, hold forth strong attractions to the husbandman. All the productions of the temperate zone can be grown; the grape and fig are found in a state bordering on perfection; other fruit, such as apples, pears, peaches, plums, nectarines, etc., attains a size and flavor that the products of but few other sections equal. But little attention has been paid to farming in Nevada County. Since its organization, in 1851, the prime industry has been that of mining. The attention of the population has been directed to extracting gold from the hillsides and ravines, and still there is every reason to believe that the deposits have been but partially worked out.

The topographical features of Nevada are high lateral ridges of the main chain, between which, in deep cañons, flow rapid streams. Near the summit are several beautiful lakes and exquisite valleys; Donner Lake, one of the sources of the Truckee River, lying on the southern slope. This is one of the loveliest of the lacustrine series of the Sierras. It rests in a quiet hollow, fringed by trees, and surrounded on three sides by towering mountains, the valley of the Truckee softening the prevailing wildness of the scenery on the fourth side. By its border runs the slot in the rocks over which goes the Central Pacific Railroad. Donner Lake can either be reached via the Summit or Truckee town, which is but two miles distant. During the summer the lake is a glorious place of resort, there being good hotel accommodations, carriages, and horses at pleasure: the fishing and boating being excellent, air pure and health giving. Referring to the event which has given Donner Lake an historical interest, a competent writer says:

> The name perpetually recalls a painful reminiscence of the trials and hardships of the pioneers of California. Near the southern end of the lake are some high stumps of trees, old and decaying, which indicate the site of the "Donner cabins," where in 1846, a party of immigrants from Illinois, of which the Donner family formed a part, caught in the early snows of that year, made their encampment and were compelled to pass the winter. Terrible suffering ensued, many dying from starvation, whilst others relieved their hunger by cannibalism. Indeed, there are suspicions that in the deep despair of their frigid imprisonment murder was committed and the body of the victim used for food. The survivors were relieved in February, 1847, by the exertions of the settlers at Sutter's Fort, when their tale of suffering and despair sent a thrill of horror over the country that to this day attaches a melancholy interest to the scene that bears the name.

Of the numerous rivers, the Middle Yuba, the South Yuba in the north, Deer Creek in the center, and Bear River in the south, are the principal.

Nevada County is divided into nine political townships. According to the United States census of 1880, the total population of the county was 20,534. The townships have population (census 1880) as follows: Nevada, 5,540; Grass Valley, 6,700; Eureka, 603; Bloomfield, 1,017; Rough and Ready, 1,565; Little York, 1,031; Washington, 537; Bridgeport, 1,982; Meadow Lake, 1,479. The population, according to the census of 1870, was 19,134. The vote of the county at the election in 1884, was 4,215. Although but little grain is raised in the county, yet in the production of fruits, of the very best kind that belong to the temperate zone, a portion of Nevada County cannot be excelled. The fruit region is all in Grass Valley, Rough and Ready Township, and in western portions of Nevada, Bridgeport, and Little York Townships. These fruit crops are a certainty every year, and the excellence of the production insures the highest prices in the market. In the higher altitudes the apple can be produced in unlimited quantities, and of unsurpassed excellence in all respects. The fruit capacities of Nevada County ought to give it, and can give it, a population more than three times that of the present, and it is not at all improbable that in the not distant future her fruit crop may be a greater source of revenue than all her mines, great as they are.

The vine flourishes in the lower altitudes, and good wines have been made from grapes grown at the altitude of 2,500 feet. There are but four or five wine cellars in the county, and the grape industry, though promising in results, has not been demonstrated to be a great success.

The county is well supplied with schools and churches. Every neighborhood has its school house, and in the smallest places these houses are used for public worship. The county has three daily, one tri-weekly, one semi-weekly, two weekly newspapers, and one monthly newspaper.

One of the most important public enterprises inaugurated here in many years is the organization of a Fair Association, in conjunction with Placer County, in connection with the beautiful park and mile track belonging to the association, which is situated half way between Nevada City and Grass Valley.

The center of the county is reached by the Nevada County Narrow Gauge Railroad. This road runs from Colfax, on the Central Pacific, to Grass Valley and Nevada City, a distance of about 24 miles.

From the two towns named fine wagon roads run to all parts of the county. Some of these roads are splendid results of passing by easy grades, over sharp and high ridges. The scenery on these roads is unsurpassed on the coast. The altitude of Nevada County, varying as it does from a few feet to 8,000 feet above the level of the sea, must necessarily give rise to a great variety of climate. Such is the case. While in the western portion of the county frost is of very rare occurrence, at the top of the Sierras—at Meadow Lake, for instance—scarcely a night passes without at least a white frost. It snows but rarely below Rough and Ready, and at an altitude of 2,500 feet the fall of snow is light, or lies but a few days on the ground; but on the summit snow is often seen from 15 to 20 feet deep. The winters are not as cold by far as in the same altitude on the eastern side of the continent. The rainfall, however, is much heavier than in the valley regions of the State. At Nevada City, the county seat, altitude 2,500 feet, the average rainfall is 52 inches. The climate in the greater part of Nevada County is pleasant and equable. The winters are not severe except at the highest altitudes.

Nevada City, the county seat, is 207 miles from San Francisco, and 69 from Sacramento. It lies in a deep basin of the Sierras, on both sides of Deer Creek, 15 miles from Colfax, the nearest station on the Central Pacific Railroad, and it is the terminus of the Nevada County Narrow Gauge Railroad, distance 23½ miles from Colfax, where it connects with the Central Pacific Railroad. Since its construction it has done an excellent business, has been well managed in every particular, and has added greatly to the importance of the county, which is one of the best in the State in every particular. Nevada City is surrounded by extremely rich quartz rock and placer mining. It has been several times destroyed by fire and as often rebuilt. Its public buildings indicate wealth and prosperity, the mineral yield amounting to millions annually, whilst the fruit crop is always a heavy one. A record of the rainfall in the vicinity has been kept here for some years.

It contains a population of 5,000 inhabitants. Two foundries are kept busy manufacturing machinery and supplies for the mines. Four breweries, a planing mill and sash factory, and six blacksmith shops flourish.

The Court House is a fine structure, erected at a cost of $75,000. Washington school house is a large two-story building, in the construction of which over $15,000 was expended. The schools are well conducted, and the educational advantages afforded are unsurpassed by other towns of the same size. Five churches, all creditable looking edifices, adorn the town and show the moral status of the people to be up to the average. Two newspapers, the Nevada "Transcript" (daily), Brown & Calkins, publishers, and the Nevada "Herald" (tri-weekly), Gray & Davis, publishers, are published here.

Grass Valley, known as the "Queen of the Quartz," with a population of about 7,000 persons, is situated at the head of the foothills, on the line of the Nevada County Narrow Gauge Railroad, in a beautiful valley, intersected with a network of ledges, some of which have been worked since the fall of 1850. It doubtless stands first among the mining towns of America. In round numbers the production of these ledges has been estimated at $100,000,000, and the district as yet has not been more than merely scratched on the surface. Nearly all the ledges stand within a distance of 4 or 5 miles from the town, and there are no hydraulic mines in the neighborhood, nor any contest over "slickens." The land is not worth much for anything besides mining, though considerable really mineral land hereabouts has been permitted to be patented as agricultural. The stern fact is that the late frosts of spring, and the early frosts of autumn render fruit growing (pears and apples excepted) very precarious. No wheat is grown to any extent, and hay is the most valuable crop.

Besides the Idaho and Empire Mines, which are still as productive as ever, a large number of old mines have been resurrected during the past summer, with great promise in nearly every instance. The old French Lead or North Star Mine has again been placed among the bullion producers. The Phœnix group, on Osborn Hill, are turning out rich rock. The Allison Ranch is recommencing operations. The William Penn, or Crown Point, has struck a chute that has caused the mine to be bonded for half a million. The Badger, supposed to be on the extension of this lead on the south, and the Coe, on the north, have been reorganized. There is a good deal of boom in Grass Valley this season. One of the most wide awake of interior newspapers, the "Daily Tidings," edited by Colonel Shoemaker, is published in Grass Valley; also the "Union." The former is somewhat Republican; the latter anti-Stockton Democrat. Both are said to be doing well.

North Bloomfield is situated 15 miles northeast of Nevada City, on the high ridge between the Middle and South Yubas.

North San Juan, 13 miles north of Nevada City, is reached by stage from Colfax. Two lines connect it daily with Marysville, 40 miles distant, whilst all the neighboring towns are easily and regularly reached. Perched at an elevation of about 2,000 feet, on the ridge of the belt covered by winter snows, it has a climate where frosts are slightly felt, and most favorable to vigorous health. The town occupies a lovely site, the houses being well built, embowered in gardens and orchards. North San Juan is, in fact, a representative mountain town of the mining region. The "Times" is published here weekly.

Rough and Ready is 8 miles southwest of Nevada City, on the stage road from Marysville to that place. It depends on both mining and agriculture for its trade. The locality was settled upon by the overland emigrants of 1849, who found gold plentiful in the ravines and flats of the neighborhood. Fortunes of from $10,000 to $50,000 were found in a single season. The diggings, however, worked out, and flush times are past. Although snow sometimes falls, the weather is never so cold but that the orange, lime, and pomegranate can be cultivated.

Truckee is on the eastern slope of the Sierras, and is one of the principal stations on this section of the Central Pacific Railroad. It has a fair-sized and increasing population. The place was formerly known as Coburn's, a hotel of that name being kept there when the wagon road via Dutch Flat and Donner Lake to the silver mines of Nevada State was in use. A large amount of the lumber used on the railroad along the mountains, ties, trestlework, etc., was supplied from the magnificent timber that grew in the vicinity of Truckee. The Truckee River furnishes power for mills and the transportation of logs, the town lying on the banks of this splendid stream. Though millions of feet of lumber have been cut down the surprising power of renewal keeps the logger fully employed, with the promise of steady work for many years to come. Putting up ice is also an important resource. The town is located in the midst of scenery the most romantic and grand to be found in the State. Lake Tahoe is 15 miles south, a capital line of stages running to it from Mr. Moody's well kept hotel, and Donner Lake is close at hand.

The other towns and precincts are: Allison Ranch, Banner, Boca, Birchville, Blue Tent, Bear River, Chalk Bluff, Clear Creek, Forest Springs, Grass Valley, Graniteville, Greeley, Indian Springs, Indian Flat, Iron Mountain, Kentucky Flat, Little York, Lime Kiln, Liberty Hill, Lake City, Magnolia, Mooney's Flat, North Star, Oakland, Omega, Pleasant Valley, Pleasant Ridge, Quaker Hill, Relief Hill, Sebastapol, Spencerville, Union Hill, Washington, and Willow Valley.

The taxable wealth of the county in 1885 was:

Real estate and improvements	$5,245,725
Personal property	$1,246,240
Mining claims (included above)	$972,485
Miles of mining ditches	583
Head of cattle	6,891
Head of goats	2,310
Head of horses and mules	2,693
Head of sheep	2,648
Bushels of charcoal	40,000
Acres in hay	5,978
Acres in vines	199
Tons of grapes per acre	3
Gallons of wine made	8,670
Grapes sold for market (pounds)	59,700

PLACER.

Placer is bounded on the north by Nevada County, on the south by Sacramento and El Dorado, on the west by Sutter, and on the east by the State of Nevada. It strongly resembles its neighbors in topographical peculiarities, and a description of Nevada or El Dorado would apply equally well to Placer. A ride in a Central Pacific car would give one the best idea of the different aspects of the county, as with the exception of a few miles to the eastern part, the county is completely traversed by this wonderful line. There are 30 miles of the road and 20 stations in Placer. A grander or more exhilarating ride than that from the Summit—on the border line—to Colfax cannot be imagined. Winding around Cape Horn and half a hundred other precipitous cliffs, down which you look out of the open observation car, you sweep from a height of 7,000 to a level of 2,500 feet in a ride of two hours and a half. The scenery is various, novel, and magnificent. You sit in the open car at the end of the train, where the roar of the wind, the rush and vehement impetus of the train, the whirl around curves, past the edge of the deep chasms, among forests of magnificent trees, fill you with excitement, wonder, and delight. As you draw down to the lower levels the fruit-bearing foothills are passed, the great Sacramento Valley is reached, and, as Mr. Nordhoff says, "the entrance into California is to the tourist as wonderful and charming as though it were the gate to a veritable fairy land."

There are several very remarkable spots in Placer; Cape Horn, Dutch Flat, Blue Cañon, Soda Springs, and part of Lake Tahoe. Cape Horn is noted as the most dangerous—no, not dangerous—the most exciting point on the Sierra trip; as you look out of the carriage window sheer down an unbroken cliff to the American River, running over a thousand feet below. The cutting of the roadbed was a work of surpassing difficulty, the navvies who did the boring for blasts being let down over the face of the mountain by ropes.

For many years gold mining constituted the principal recourse of Placer, but now agriculture, horticulture, and grazing contend for and have gained precedence. The wealth of the soil has been proved, and fields, orchards, and vineyards occupy abandoned ground to the permanent advantage of the country. Along the line of railroad are numerous quarries of granite.

The rivers of Placer County include the Middle Fork of the American River, the North Fork, the Bear River, and Truckee River.

Besides the California Pacific Railroad, there is the California and Oregon Railroad, running nearly north from Roseville through the farming section; and the Colfax and Nevada Narrow Gauge, giving the people of the county cheap and rapid transit.

As regards the resources of Placer County, a writer familiar with the subject, says: In my opinion, the fruit and berry interest is to be in the future the most permanent interest of the county. Mines may work out, quartz ledges pinch out, and the soil of the plains "peter out," from overwork, but the innumerable foothills can furnish homes and occupation to the fruit raiser for all time. Of course, sudden fortunes are not made as in the mines, but permanent homes are. The Assessor finds each year, on his rounds, a little more value than the year before.

The shipments of strawberries, raspberries, blackberries, peaches, grapes, apples, pears, quinces, tomatoes, and in fact all kinds of fruits and vegetables, from the towns of Rocklin, Penryn, Newcastle, and Auburn, are immense; Newcastle doing by far the largest business, it being the outlet for the prosperous Ophir fruit valley.

The early and late markets are found in San Francisco, the midsummer ones over the mountains, in the State of Nevada and the Territories.

The culture of the orange, lemon, and lime is making gigantic strides from Auburn to Penryn.

The orange ripens from four to six weeks earlier here than at Los Angeles, and is thinner-skinned and equally good in flavor.

Our most successful orchardists feel certain that the success of the orange is assured, and do not hesitate to engage in the culture to the extent of their means.

The Bear River ditches and tributaries are important factors in the prosperity of the foothills. The water is taken out of Bear River near Colfax, and is distributed like an open fan over the underlying hills. The main ditches and branches aggregate 500 miles in extent. The low valleys were once thought to be the proper places for fruits and berries, but experience has taught that the highest hills are the most suitable, freer from frost and earlier for the markets. Consequently, on the highest points to where the water can be piped or flumed, is where the little ranches are located.

The exact fruit shipment during 1885 from Newcastle and Penryn—the present center of the fruit business—amounted to 3,631,130 pounds. The shipments from Auburn, Colfax, and Dutch Flat would increase the total to about 4,000,000 pounds. The total shipments from the State have been estimated at 36,000,000 pounds for the season, which shows that this county has shipped one ninth of the fruit sent out of the State. This is something not generally appreciated, and it is all the more surprising in reference to the map, where the fruit producing area of the county—from Colfax to Roseville—is seen to be comparatively small.

Much interest has lately been taken in olive growing. There are already two large orchards, and at least 2,500 trees will be planted during the coming season.

The number of acres cleared and planted during the year cannot be stated with accuracy, because the reports on that subject are practically worthless. Many of the blank statements sent out by the Assessors to large landholders were returned without being filled up. Near Penryn, Rocklin, Roseville, Newcastle, and Lincoln, the increase has been considerable. Around Colfax 50 more acres of vines will come into bearing in 1886, and between 300 and 400 acres more will be planted.

It has been well said, that the success of the Colfax district in raising grapes, which took the first prize at the State Fair last year, and also in 1883, is one of the best advertisements the county has had; but, it must be admitted, that the people are diffident and slow about making their resources known to the outside world. If one of the southern counties possessed Placer's advantage, for viticulture, and had achieved what has been done here to prove it, it would already have been the subject of thousands of pamphlets spread broadcast over the country. In the matter of immigration, however, Placer County is at a disadvantage. It is so located on the map, that it serves merely as a funnel, through which immigrants pour and debouch into the surrounding counties.

In the valley, the average farming of the plain is carried on. Some of the bottom land is very rich, and apparently exhaustless in fertility. The quarrying and dressing of granite is an important item of wealth to Placer County, and the curious inquirer may see many samples of the dressed rock in the public buildings and works of California. Among them may be named the base of the State Capitol, United States Mint, San Francisco, Dry Dock, at Mare Island, and in fact many of the handsomest buildings in San Francisco were constructed from Penryn and Rocklin granite.

Believing that these foothill sections of California have within them magnificent capabilities, in the way of fruit, and desiring, in the welfare of the State, to give all the information possible in this direction, that this interest may be stimulated and encouraged, we quote from another writer in the Sacramento "Union," in his remarks about Placer County:

But the future of Placer does not depend alone upon her beautiful scenery, nor her health-promoting climate. It is one of the coming horticultural counties of the State. All that portion of the county lying between the Sacramento Valley proper and the snow belt—which is at an altitude of some 3,000 feet—and which comprises what is known as the foothill section, is rapidly coming under cultivation. The lumber and mining industries are fast receding before the onward march of agriculture. Throughout the foothill section, land can be had for from $10 to $20 per acre, that needs only to be cleared of the light growth of timber and brush to make it valuable for vineyard and orchard purposes. And then, too, the soil of these hills and slopes is of a character peculiarly suited to these industries, as has been abundantly proven.

The Colfax Fruit Belt,

So called, extends from Clipper Gap, on the Central Pacific Railroad, to, and even above Colfax, to an altitude of 2,800 feet. And while undoubtedly the same character or features of soil and land extend to an indefinite extent, both east and west from the railroad line, yet the improvements in fruit culture are as yet confined to or within the area of lands bounded on the east by the North Fork of the American River, and the west bank of Bear River. The peculiar features of this belt, which it is claimed makes it most valuable for fruit growing, is the fact that the whole underlying bedrock is of slatestone formation, of a light brown color, and is very much broken up, disintegrated to a depth, in most cases, of 10 to 12 feet. This makes the soil very retentive of moisture, and as a heavy rainfall occurs at this altitude, the fruit culturists are enabled to successfully raise all kinds of fruits and general produce, without irrigation. And, it is claimed by shippers, that fruit thus grown is not only much finer in quality, but also much firmer in texture, and therefore bearing transportation to eastern markets much better than irrigated fruits. Improvements are going on very rapidly in this region, most largely thus far in setting out grapevines, for both wine making and for shipment to eastern markets, for table use. Not far from 250 acres of vines were set out in this vicinity during the season of 1885, and of fruit trees about 100 acres, the Bartlett pear largely predominating, but some have planted both prunes and cherries. One man has planted 600 peach trees, and lost but 3, even during the very dry and unfavorable season just past, and all kinds of fruit and vines have attained a very large and vigorous growth. These improvements have made an actual addition in resident settlers of 25, while about a like number have become purchasers, and have commenced clearing land for cultivation. At the present time about 400 acres have been cleared for setting to vines and trees during the coming season, and some $200,000 or more added to the taxable wealth of the county.

Auburn, the county seat of Placer, is in many respects an interesting town. It is situated on the main line of the railroad, within easy distance of Sacramento. The altitude is 1,363 feet—just high enough to escape the heat of the valley, and low enough to be free from the frosts of the higher altitudes. During the 12 months preceding November, 1885, the lowest temperature in Auburn was 23 degrees; the highest was 103 degrees; the mean temperature for the year was 58.60 degrees. This equable temperature makes it possible to produce all the fruits that are grown in any part of the State. In many of the yards and gardens can be seen at least one or two orange trees loaded with fruit; and even the lemon has in some cases been cultivated with success. From many experiments already made it is believed that this locality is specially adapted to olive growing. There is one large olive orchard already in bearing, another of several hundred four-year old trees, and at least 3,000 more olive trees will be planted the coming season. The plants have also been successfully cultivated, and the people are just awakening up to the possibilities of their resources.

The delightful climate of Auburn has also secured for it a good reputation as a health resort for those troubled with bronchial or pulmonary diseases. The town has seven good hotels, which receive a large share of their patronage from health-seekers, and the confidence in this particular place of the physicians who send their patients here has in most instances been justified by the benefits received.

In two respects the town of Auburn is peculiar. Although it contains nearly 2,000 inhabitants, there are as yet no manufacturing industries within or near it; and, while all the people are well to do and prosperous, there are none who can be called wealthy. In this latter respect at least there is the anomaly of a town of 2,000 people without the usual rural magnate who rules the village roost by virtue of his affluence. There are three churches—Catholic, Methodist, and Congregational. There is a model public school, in which three teachers are engaged, and a private normal school, which offers superior advantages, and which has been fairly successful.

Auburn has long depended for the greater part of its business on being a distributing point of supplies for the Forest Hill and Iowa Hill divides, and on the fact that it is the county seat. Its growth has, therefore, been slow, but a new condition of things is now in progress. The hillsides for miles around are being cleared of the brush and timber and planted to trees and vines. Its future importance as a fruit shipping depot is already conceded, and one firm has been conducting that business at a good profit during the season just closed. The soil is the best of what is known as the "red soil of the foothills;" the climate, as indicated above, is unsurpassed; and the average rainfall is sufficient to grow most varieties of fruit without any irrigation. Since last June the rainfall to date was 15.27 inches. Where artificial irrigation is necessary, the Bear River ditch affords an abundance of water.

Even if it is not fanciful, it may be looking a good way into the future to predict that some day Auburn will be noted for its great number of handsome country residences, which will be built by people who wish to live in leisurely retirement, or by wealthy business men of Sacramento, and even San Francisco. People like to go to the foothills during the summer months, and there is no place on the line of the railroad within reach of those cities that affords more choice building sites than Auburn.

Four miles below Auburn is the little town of Newcastle, which only a few years ago had no business interests, and consisted of only about a score of houses. It is now rapidly coming to the front as one of the most important places in Placer County, owing to the large fruit interests of which it is the center. There are four large shipping houses and another in course of building. During the season just closed there were shipped from Newcastle, 5,355,393 pounds of green fruit. This large quantity is at least a tenth part of the estimated number of pounds shipped from the entire State, which is a fact not generally appreciated by the public, nor even by the fruit growers in other sections. At Auburn the geological formation is slate. Newcastle is situated on the granite belt, and is some 300 feet lower than Auburn, so that fruit ripens from 3 to 7 days earlier about Newcastle than it does at the county seat. In fact there are four varieties of fruit—cherries, strawberries, raspberries, and plums—which ripened at Newcastle last season earlier than in any other place in California. With these advantages of early fruit, and being at least a few hours nearer the eastern market than any other place, Newcastle will, undoubtedly, become one of the most important fruit centers in the State.

Twenty-five miles from Sacramento and 12 miles from Auburn is a station on the Central Pacific Railroad, called Loomis (formerly Pino). Up to the winter of 1881–82, the land contiguous had been devoted principally to hay farming and stock raising. Near by were two vineyards of productive capacity, but their owners had made little effort to bring the country into notice. In the spring of 1882 E. W. Maslin, of Sacramento, bought a piece of land from the railroad company, near the station, and proceeded to test the question of planting a vineyard without irrigation. He cleared the land of chaparral and oaks, and planted six acres of wild California vines as resistant stock. Contrary to predictions made, the vines flourished, and in 1884 were grafted with Zinfandels. Other purchases were made soon after of adjoining tracts, notably by W. G. Williams, Mrs. Almira Merwin, George Martine, Mr. Coppin, J. F. Hill, and J. R. Johnston, of Sacramento; J. J. Morrison, J. Morrison, Andrew Ryder, Mr. Snider, and Mr. Treneal, of San Francisco. The new plantations which followed the advent of the newcomers show marvelous growth, and the success of Loomis as a fruit growing section is already assured. The effect of non-irrigation upon fruit was manifested at the last State Fair. Messrs. Morrison and Maslin made an exhibit of grapes, apples, and other fruits, and also of vegetables, grown by them and by their neighbors, and which formed a part of the Placer County exhibit. These displays contributed toward winning the awarded prize of $200 to that county. At the close of the fair the fruit was in perfect condition, and was removed by them to the Mechanics' Fair at San Francisco, and there exhibited as the production of Loomis grown without irrigation, and was awarded a prize of a silver medal and a framed diploma.

The hills are of gentle slope (10 to 15 degrees) and do not wash in winter. Not many springs abound, but soft water of a temperature of 60 degrees in the hottest days of summer is found at varying depths of from 15 to 25 feet. In the winter the water is nearer the surface. The climate is about the same in degree of heat and cold as Sacramento City, while the nights, both winter and summer, are most agreeable. The elevation (402 feet above the sea) practically exempts the country from the winter fogs. The ridge between Antelope Creek and Secret Ravine may be said to be within the thermal belt, and practically exempt from frost. On the night of April 19, 1884, when nearly the whole State was visited by "the great frost," this section passed unscathed.

Transportation facilities are unsurpassed in the State, Loomis enjoying, with every other station in Placer County, several side tracks, where the shipper may load at his leisure. The train hours are favorable to the residents, the cars leaving at 6 and 9:20 A. M. for Sacramento, and returning at 2 and 9 P. M.

The soil is granitic, of a light reddish cast, running in places to dark gray; is of a depth of from 3 to 6 feet, resting on rotten granite, which is penetrable by pick, as has been demonstrated, as deep as 20 feet. Although the analysis indicates slight retentiveness of moisture, experiment has shown that in August, 1885, the most arid year yet experienced, the moisture was well retained and on cultivated land was within 3 or 4 inches of the surface, and vineyards and trees set out in the spring showed no less growth than those planted the previous spring. Analysis of the poorest hill soil near Loomis, selected on account of its low types, so that there should be no disappointment, shows it bears a remarkable similarity to the bench land soil near Vacaville. These analyses were made by Professor Hilgard, of the University. Upon the "bench land" were growing apricots and cherries, and the Professor—writing upon the soil of Loomis—states "that the analysis points to its adaptation to the production of grapes of which quality, rather than quantity, would form the chief recommendation. The fig, olive, and probably the cherry, would do well on the hillside, while in the valleys, where both phosphates and humus are more abundant and the soil is more retentive, other fruits would thrive. Except as to inferior retentiveness and humus supply, this soil is very similar in composition to Vaca Valley, on which cherries flourish." The following are the analyses:

Loomis—Insoluble matter, 78.942; soluble silica, 6.283; potash, .653; soda, .298; lime, .758; magnesia, 1.280; br. ox. manganese, .087; peroxide iron, 2.301; alumina (clay) 6.816; phosphoric acid, .031; sulphuric acid, .018; water and organic matter, 2.598. Vaca Valley—Insoluble matter, 68.76; soluble silica, 12.15; potash, .74; soda, .12; lime, .58; magnesia, 1.07; br. ox. manganese, .05; peroxide iron, 6.01; alumina (clay) 6.23; phosphoric acid, .03; sulphuric acid, .02; water and organic matter, 4.28.

Thus it will be seen that while the soil about Loomis is only slightly inferior to Vaca Valley soil, it exceeds it in lime and clay and phosphoric acid, and is only inferior in iron. In all the deeds made to town lots in Loomis, a restrictive clause is inserted prohibiting the retail of spirituous liquor, though this restriction will not apply when a good hotel is erected.

In the past year the transportation of freight from Loomis by rail was as follows: Received, 1,764,000 pounds; forwarded, 3,330,340 pounds. This is an excellent showing when we reflect that three years ago the business of the station was comparatively insignificant. East of the station, between 2 and 3 miles, is a section largely devoted to fruit raising, the products of which are shipped to Penryn and Newcastle, owing to business relations formed before Loomis afforded the facilities it does now for receiving fruit. In the above locality is included the Orange Vineyard property of E. L. Hawk.

Taxable Wealth in 1885.

Real estate and improvements	$6,657,932
Personal property	$1,781,719
Head of cattle	7,503
Head of goats	5,244
Head of hogs	6,150
Head of horses	4,154
Head of mules	182
Head of sheep	84,244
Acres in wheat	50,470
Acres in barley	23,980
Acres in oats	27,155
Value of water ditches	$314,735
Miles of water ditches	500
Acres in vines	1,931
Gallons of wine made	70,000

PLUMAS.

We are still up amongst the mountains, and what has been attempted in the way of describing El Dorado, Alpine, and Placer Counties would only be repeated in writing of the topographical features of Plumas, whilst its productions are almost precisely similar to those of Placer, Nevada, and the others. It has less plain land than those counties lying to the south, but it has a great number of splendid valleys admirably adapted to grazing and agriculture, the mountains are ransacked for auriferous quartz, the woods yield lumber by the million feet, and the foothills are one everlasting orchard. Much has been done in Plumas to make land fruitful by irrigation.

The "verdant gems" which the mountains of Plumas inclose are the Big Meadows, Mountain Meadows, Indian, American, Beckwith, and Meadow Valleys. The largest of these is the Big Meadow Valley, 15 miles long and 4 broad, connecting with Mountain Meadows, nearly as large, and several smaller ones, with a general elevation of 4,500 feet, constituting a plateau on the summit of the mountains. These are grassy meadows, filled with sparkling streams, and are most inviting spots to the grazer and dairyman. Indian Valley is 11 miles in length by 2 in width, and, with several connecting valleys, is occupied with farms and villages, whilst important gold and copper mines exist in the surrounding hills. The American Valley is 11 miles long by from 1 to 2 miles wide, and has an elevation of 3,500 feet. All these valleys are fertile, well watered and timbered, and contain an area of agricultural and grazing lands sufficient for the support of many thousands of people.

The North and Middle Forks of the Feather River (El Rio de las Plumas) take their rise in this county. This stream, the largest tributary of the Sacramento, drains the Sierras between the thirty-ninth and fortieth degrees of latitude. The North Fork rises in the southern slope of Lassen's Peak, and becomes a rapid stream of 100 yards in width as it flows through the valley of Big Meadows. Rush, Indian, and Spanish Creeks flow through beautiful mountain meadows and rich mining camps until they join the North Fork from the east, whilst Cherry Creek and West Branch enter it from the west. The Middle Fork rises in Beckwith Valley, and, cutting through a deep gorge in the mountains, flows southwestward, joins the North Fork 4 or 5 miles before entering the valley. The South Fork and Nelson Creek are smaller streams and branches of the Middle Fork. The Sierras rise to many gigantic peaks in Plumas, the principal being Butte Mountain, Rock Creek Hill, Goodwin's Peak, Mt. Claremont, Pilot Peak, Beckwith Peak, Mt. Wellington, Mt. Taylor, Pennan's Peak, Mt. Onjum, and Mt. Adams.

Plumas County differs from the counties lying to the south of it in contour, the surface being more of a rolling character, and thus placing a great deal of rich valley land at the disposal of the husbandman. There is virtually no limit to the fertility of the soil in those valleys, composed, as it is, of the alluvial deposits carried down by the melting snows and the rains of centuries from the overhanging Sierras. Along the foothills almost every available foot of ground is utilized for fruit growing purposes, and all kinds of fruits reach the highest perfection there. The lower ground is almost entirely devoted to grazing and agriculture, the only drawback to those industries being the lack of accommodation for conveying the product to market.

The mining interests continue to feel the damaging, yet, in some respects, wholesome effect of the anti-debris legislation, but its necessity is beginning to be appreciated and acquiesced in. Quartz mining is being actively engaged in, and prospecting, which last year was almost entirely given up, has been again resumed, and with indications of fair success.

Quincy, the county seat, is a place of some 500 inhabitants. It has a weekly newspaper—the "Plumas National"—which receives good support from the people of the county, and a fine brick school house, with two departments, primary and grammar grade.

Elevated Farming.

The altitude of American Valley is about 4,000 feet, yet all the cereals, alfalfa, etc., yield abundantly. The winters are long and somewhat severe, and the summers brief, but delightful. From July to October the climate of Plumas—especially in the greater altitudes—cannot be surpassed for salubrity. The Plumas Meadows embrace a section that is greatly prized by the people of the valley as a summer resort, and large numbers go there each season to camp, hunt, and fish, and thus renew their health and energies.

Gold Yield.

In the earlier days of gold seeking in California, Plumas was a prominent mining section, and even at the present time the annual gold output amounts to nearly or quite $1,000,000.

Future Prospects.

There is reason to hope that Plumas will, at a not distant day, have the advantage of railroad communication, as there have been at least two such projects in contemplation, either one of which may yet develop into something tangible.

La Porte, about 30 miles south of Quincy, is also reached by stage from Oroville. La Porte was formerly known as Rabbit Creek. It is one of the most elevated towns in the State, having an altitude of 4,500 feet. Placer mining and lumbering are extensively carried on in the neighborhood. Snow falls to a great depth in winter, snowshoes being then the only method of travel. Population, 300.

Meadow Valley, 7 miles west of Quincy, on the stage road to Oroville, is a small place situated at the base of a high ridge of the Sierras, on one of the branches of the North Feather River. Snow-capped mountains look down upon it nearly all the year round. Roads lead from Meadow Valley to the American Valley, to Nelson Creek or the Middle Fork of the Feather, to Rich Bar, on the eastern branch, and to other mining localities.

Taylorville, 21 miles northeast of Quincy via wagon road, and 15 miles via trail, is the principal town in Indian Valley, one of the large and lovely parks that occupy the great northern plateau of the Sierras. The valley has numerous arms, the principal of which is Genesee Valley, aggregating 30 square miles. The surrounding mountains are high and precipitous, but good roads have been made over them in various directions, particularly the stage road via Red Clover Valley, Silver Valley, and Beckwith Pass to Reno, on the Central Pacific Railroad, 75 miles distant. At Taylorville are a flour mill and sawmill, in the vicinity are quartz mills and valuable mines of gold and copper. The stage reaches Taylorville by the route mentioned, also via Oroville and Quincy, and from Chico via Big Meadow. Travel is interrupted in winter, however.

Besides the above towns, there are the following towns and precincts: Antelope, Beckwith, Butterfly, Crescent, Clover Valley, Diamond Spring, Greenville, Hot Spring, Island, Lincoln, Lassen Buttes, Mohawk, Pioneer, Pilot Creek, Summit, Sulphur Spring, Seneca, Spanish Peak, and Union.

Plumas County was organized in 1854 and has an area of 2,736 square miles.

Her real estate and improvements were valued in 1885 at $2,174,829.

She had 5,749 head of cattle, 1,222 head of hogs, 2,112 head of horses and mules, and 520 sheep.

SACRAMENTO.

The following description of Sacramento County we take entire from the Sacramento "Union" of January 1, 1886, as the most complete that can be given of this old county. We also take occasion to acknowledge our indebtedness to the "Union" for much of the matter relating to the northern counties of this State.

There are few counties in the State wherein the arts of husbandry are maintained in a higher state of perfection than in Sacramento. This county lies a little north of the geographical center of the State, but is the natural railroad center of the country north of the San Joaquin Valley. Her area is 1,020 square miles, and her population in the neighborhood of 45,000. There is very little land in the county that is not susceptible of cultivation, assuming that the tule bottoms bordering on the river can be reclaimed, and they doubtless will be in the course of a few years; for the soil is the richest and most productive of any in the State. These tule beds, enriched by the accumulations of decayed vegetation for perhaps centuries past, are capable of wonderful results. Several crops can be grown upon the land in the same year, and the yield—whether it be of grain, vegetables, or fruit—is enormous. Scores of years of constant cultivation would not materially affect the yield of these tule lands, so vast are their resources of fertility.

In the earlier history of California—that is, subsequent to the discovery of gold—Sacramento was a mining county. All along her foothill section, and the banks of the American River and its tributaries, were placer diggings of great wealth. Sacramento City was for many years sustained chiefly by her trade with the mines, and in the foothill section of the county were a number of flourishing, bustling villages supported by the thousands of miners then employed in washing the gold from the soil and rocks of the various gulches. These villages have all long since passed away, not even the walls of a cabin being left to mark where some of them stood. The gold seekers, too, are all gone (or nearly all) and their places taken by a few scattering Chinamen, who are content to wash over the old tailings. Some placer claims about Folsom, however, still yield considerable gold, and the yearly product amounts to several hundred thousand dollars. Instead of a mining county Sacramento long ago became the seat of a great agricultural community. Her people grow wheat, barley, oats, hay, fruit, grapes, vegetables, hops, etc., in large quantities. Scattered throughout the county are wineries, hop kilns, fruit canneries, etc., which give employment to a large number of men, women, and children. The

Natoma Vineyard and Orchard,

Which lies between Sacramento City and Folsom, is perhaps the largest in the State, with the exception of the Stanford vineyard, in Tehama County. When the company's present plans shall be completed it will have a vineyard of some 4,000 acres. This property is finely improved, and the bearing vines yield immensely. During the season several carloads of fruit and grapes are shipped daily from the company's depot at Alder Creek, on the line of the Sacramento and Placerville Railroad. All along the bottom lands of the American River, from the foothills about Folsom to Sacramento City, are flourishing orchards and vineyards, which yield handsome returns to their owners. The rich alluvial soil bordering on the Sacramento River is chiefly devoted to fruit and vegetable production, for which purpose it is very valuable. The farmers and orchardists along the lower Sacramento find ready means of transportation at their own doors, as small trading and transportation vessels are constantly plying between these localities and San Francisco.

General Farming.

Out from the river are found grain farms, dairies, some orchards and vineyards, and stock farms. Of late years much of the bottom land along the rivers has been devoted to hop culture, for which it is peculiarly adapted. The yield is uniformly heavy. Indeed, Sacramento hops are preferred over those of most other sections and command the highest prices in the eastern and European markets. While hop culture is an uncertain venture, as regards the realization of big profits, still it is an important branch of industry. Some seasons, when the crops are light in the East and Europe, our growers realize immense profits; and, as whole or partial failures abroad are of not infrequent occurrence, California growers are thus often benefited. Since 15 cents per pound will cover the expenses of raising hops, some idea can be formed of the profits realized from their production when it is stated that from 30 cents to $1 is sometimes received. The latter figure has, however, been reached but once (some three years ago), when several Sacramento growers were made wealthy from the immense profits received. The exceptional prices received for hops in that year induced a large number of persons to engage in hop growing, thus greatly increasing the yield and serving to keep down prices at the present time, the eastern and European crops having been productive in the meantime.

Inducements to Immigrants.

There are still quite a number of large ranches in Sacramento County, but the tendency of the times is toward the division of these ranches into small farms. Some months ago the Sacramento County Immigration Association sent an agent out among the owners of the larger farms, to ascertain what the owners would do toward segregating their acres in the interests of immigration. The agent reported that the amount of land thus available for smaller purchasers was quite extended, and that it could be had at reasonable rates, much of it ranging from $20 to $30 per acre. Among the tracks which can thus be purchased, 320 acres at $25 per acre, and 320 at $35 per acre, are offered by A. Plummer; 480 acres at $25, by J. Hanlan; several thousand acres by Dr. Caples; J. F. Davis has about 800 acres, which will be thus sold; G. K. Nye, owning 4,012 acres, will next season divide it among nine families (relatives), who will come from the East to occupy it. J. F. McCauley had 8,000 acres plotted and ready to be sold in lots to suit purchasers. Mr. Iler would sell 107 acres. Whittaker, Ray and Miles, of Galt, were considering the subject as to selling their large tracks near Galt. N. M. Fay, owner of the Whitcomb Ranch, near Georgetown, consisting of 4,000 or 5,000 acres, will break it up into small holdings and dispose of them to any who desire. The report also contained information concerning quality and productiveness of soil, the products which have been grown by various parties per acre, and other facts of value in connection with the work of the association.

As the central and northern counties continue to increase in population, and their resources are developed, to that extent must the commercial importance and trade of Sacramento be increased. The business depression that prevailed all over the Union during the past year was least perceptible in Sacramento than in any other part of the coast, because her business is of a steady, unspeculative character.

As a Trade Center.

The location of Sacramento City is such that it is naturally the point from which a supply business should be carried on for all the northern and central portions of the State. It enjoys the advantages of river transportation to the heart of the Sacramento Valley and to the Bay of San Francisco. It is the terminal point for several lines of railway, which reach out in every direction, and bring the city into direct communication with the great consuming sections of the State. The merchants of this city are enabled to fill orders over all these lines of transport often on the same day of receipt. The wholesale houses are all more or less direct importers, and enjoy equal advantages with San Francisco merchants in the matter of import transportation charges. The Sacramento market is 100 miles nearer than San Francisco to all the central and northern section, effecting a large saving to the purchaser in this mart in the matter of freights, while the question of time of shipment is an equally important factor; for in the majority of cases the buyer here saves not only the difference in freights, but several days of time. Then, again, the merchants of Sacramento transact business upon a more economic basis. The demand for capital is very much less—that is to say, the capital locked up in costly storehouses or paid out for heavy rentals is slight, compared to like demand upon the San Francisco merchant. Hence, the Sacramento merchant has a larger margin upon which to operate, and he is enabled to give to his customers advantages not possible to the dealer in the metropolis. Nor should it be forgotten that the incidental cost of conducting business here is less; there is neither charge for cartage nor for wharfage made by the jobbers of Sacramento. The short distance to the wharves and depots, the level grades, etc., all inure to the benefit of the buyer. The business men of this city are also more familiar than any others with the needs of the interior, and the great majority of them are of long standing in business, and have won the confidence of interior buyers by a system of broad liberality and fair dealing. There is a natural friendly relation between the houses of the city and of the country. Their interests are largely in common, and this contributes largely to the growth of the city trade. The area of this trade extends as far northward as the Oregon line and into the Eastern Territories, and as far southward as the Territories of New Mexico and Arizona.

In many lines of goods, including agricultural implements and machinery, there is no business point on the coast where they can be so safely stored, since the atmosphere is uniformly dry, not being that humid character so peculiar to the coast marts. So, too, in confections, in fruit-box manufacture, carriage and wagon making, etc., the goods put up or stored here are best fitted for the interior trade. In the matter of liquor storage, the city has unsurpassed advantages, the climatic conditions being the chief, and making this the most desirable of all points for storage. But we have no intention of enlarging upon these topics as the subject warrants, since they are, as we have said, familiar to the people of the State, and have been so often presented in these columns.

This is the point nearest the mountains from which the great eastern flow of fruit can be inaugurated with a view to saving time in transport. In the season just passed there were forwarded from Sacramento no less than 800 of the 1,025 carloads of fruit shipped eastward from California. All that we have said regarding the facilities for jobbing in Sacramento, apply also to manufacturing here. The records of actual business transacted, were, for a number of years, kept by this journal, and annually presented in elaborate reports. We have seen the wholesale and manufacturing trade expand from a total of $10,000,000 in 1872, to $48,000,000 in 1885.

From November 1, 1884, to November 1, 1885, there was shipped from Sacramento 183,484,470 pounds, made up of many classes of goods. These shipments were exceeded only by those of San Francisco, and exceed more than 50,000,000 pounds the total shipments from any other point in the State.

Taxable Property in 1885.

Real estate in county (outside city)	$9,870,630
Improvements on same	$1,397,895
Real estate in city	$4,025,880
Improvements on same	$5,897,385
Mining claims	$5,554,490
Telegraph lines	$7,050
Mining ditches	$19,590
Railroad property	$506,480
Tons of hops	993,000
Head of cattle	21,113
Heads of horses and mules	10,254
Head of sheep	67,821
Acres sown to wheat	89,326
Acres sown to barley	24,168
Acres sown to oats	11,907
Acres sown to corn	2,290
Acres in growing vineyard	6,191
Grapes sold for market (pounds)	5,579,300
Boxes of raisins	812

NOTE.—Most of the grapes raised in Sacramento were shipped to a San Francisco firm for wine-making, hence the local wine production was very light—about 1,000,000 gallons.

SAN BENITO.

The County of San Benito, created by an Act of the Legislature in March, 1874, comprises all of that territory, formerly belonging to the County of Monterey, north of the Gabilan Range of mountains. It is bounded on the north by Santa Clara and Santa Cruz Counties, on the east by Merced and Fresno—the boundary line being the summit of Mount Diablo Range—and on the south and west by Monterey County. It is 81 miles in length—lying in a direction northwest by southwest—averages about 10 miles in width, and embraces an area of about 810 square miles. The following description and character of the county is taken from Professor Hilgard's "Agricultural Features of California:"

San Benito is a long and narrow county. Its northeast and southwest boundary lines lie, respectively, on the summit of two branches of the Coast Range (viz.: the Gabilan and the inner Coast Range), whence the surface slopes abruptly to the valley of the San Benito River, which flows northwestward through the middle of the county and unites with the Pajaro River. A few small streams, of little importance, are tributaries to the San Benito.

The lands suitable for cultivation comprise but a small portion of the county area, and lie chiefly on the northwest, forming the southern end of Santa Clara Valley to Los Pinos, and are drained by the San Benito and Tres Pinos Rivers. This valley land is said to embrace about 25,000 acres of light sandy loam, 34,300 acres of black sandy loam, or adobe, the valley land proper, and 46,000 acres of what is termed second class land, partly sandy loam, and partly adobe, lying on the foothills. In addition, there is a large amount of hill pasture land.

The lower part of this valley, in a "strip reaching from Pajaro River to within 3 miles of Hollister, is a low, flat, wet, partly tule land, with a black soil, used entirely for pasturage."

The valley is from 10 to 12 miles wide below, but a few miles southeast from Hollister it terminates in a kind of rolling bench land, extending across the valley, and known as Poverty Hill, or Hollister Valley. This Poverty Hill region is treeless, its elevations being adobe in character, and in the depressions a sandy loam covers the adobe. At about 4 feet deep the earth is charged with alkali. Still southeastward the valley becomes very narrow and elevated, and to its source it is rarely one half mile wide, and often but a few rods. It is here very much cut up, and is almost wholly occupied by the San Benito River. A few white oaks in the valley, and live oaks near the hills, with occasional groups of cottonwood on the river, comprise the only timber. The soil of the valley is yellowish and silty; that of the hillsides usually an adobe, and scarcely under cultivation. The hills bordering the valley are but thinly covered with a scrub growth of oaks. Bitter Water Valley, on the south, a continuation of Peach Tree Valley, of Monterey County, is said to be 7 miles long and from three fourths to 1 mile in width. This valley is treeless, and the hills that border it have a scanty oak growth. Its soil is a yellowish and stiff clay loam, and is tilled with some difficulty, except when moist.

Dry Lake Valley, or basin, about 4 miles long, has a dark, clayey loam soil, partly timbered on both hills and in the valley with oaks, and is thickly settled.

Santa Ana Valley, lying eastward of Hollister, has an area of about 15 square miles. Its soil is a dark gravelly loam, underlaid by adobe, and partly covered with scrubby white oak. This valley opens out into San Benito Valley, and with it is very generally under cultivation in the cereals, hay, potatoes, etc.

The first class or valley lands of the county are said to yield from 30 to 40 bushels of wheat per acre, the higher or second class lands from 20 to 30, while the rolling hill lands produce from 15 to 20 bushels per acre.

The average of tilled lands for the county at large is 91.5 acres per square mile; but, as already stated, the entire acreage is confined almost exclusively to the northern part of San Benito Valley, where the average is much higher. The Southern Pacific Railroad affords transportation facilities to and from San Francisco.

In development and progress San Benito County has kept abreast with the balance of the State during the past year. Its population in 1880 was 5,584, while it is now estimated at 7,500. Assessed value of property in 1884 was $4,897,374 50, of which $3,747,255 50 represented the value of real estate, and $1,150,120 the value of personal property. In 1885 the Assessor's valuation of property amounted to $5,322,305, an increase of upwards of a quarter of a million over the previous year. Of this amount $3,989,595 represents real estate and $1,335,410 personal property. In 1884 the tax rate was $1 50, and in 1885 $1 45. Bonds to the amount of $5,000 have been paid off, leaving a county indebtedness of only $6,000, bearing interest at the rate of 7 per cent. Property owned by the county is valued at $13,000. About a half crop was raised in the county in 1885, but it is estimated that at least 10,000 acres of new land was broken and sowed to grain last winter, and the crops have been luxuriant. Much attention has been paid to fine horses, and many importations have been made, principally of Norman Percherons, $2,000 having been paid for individual animals.

At a stock parade held in April, 1885, 120 thoroughbred stallions and mares were in line; also the first thoroughbred Percheron colts foaled this side of the Rocky Mountains. The raising of fine stock bids fair to equal the growing of wheat. New orchards are being set out. About 45,000 new trees were set out last season, and the number will be greater than ever this year. On the foothills vines flourish, and vineyardists are just beginning to turn their attention to the capabilities of the soil in this direction. At present there are only about 100,000 vines in the county, and all the wine manufactured is consumed at home. The raising of sheep is on the decline, as a consequence of the large tracts being divided up and new settlers coming in on the large ranges. So likewise with stock raising, although the Gabilan Mountains will always furnish grazing enough to supply cheap beef.

The mineral outlook is not encouraging. The Comstock hills are full of quicksilver, but being so far from the line of the railroad it will take lots of plucky capital to develop it. Several soapstone mines have been located, and the raw material is shipped in carloads to San Francisco. A new limekiln has been opened in the Cenega district. This will furnish employment to a large number of men. Among the improvements made by the county during the past year is a substantial bridge across the San Benito River, between San Juan and Sargent's, spanning the treacherous quicksands. Several large land grants have been divided up and put on the market. The outlook for San Benito County is highly encouraging.

SAN BERNARDINO.

San Bernardino, one of the largest, if not the largest county in the Union, is bounded on the north by Inyo County and Nevada, on the east by Arizona, on the south by San Diego, and on the west by Los Angeles and Kern Counties, and contains 23,472 square miles, of which the larger portion is desert and mountains. The principal agricultural section is in the Valley of San Bernardino, immediately surrounding the town of the same name. The valley was originally covered by Mexican grants, the principal one of which—the San Bernardino Rancho—contained 35,509.41 acres, and was granted by Juan B. Alvarado, Governor of California, in 1842, to José del Carmen Lugo, Vicente Lugo, and Diego Sepulveda. His title was confirmed by the Commissioners to settle private land claims in California, in 1853, and was afterwards covered by a United States patent, which gives a clear title to lands on this rancho. In 1851 the title was transferred by the Lugos to the Mormons, who settled the rancho under the leadership of Amasa Lyman, Charles C. Riche, and Ebenezer Hanks. It was subdivided into farms, and sold to actual settlers. The present town was laid out and a thriving Mormon colony established. It was said to have been Brigham Young's plan to bring all the Mormon emigration to this coast, and use San Bernardino as an outfitting depot for those en route to the promised land. The Mormon war of 1857, however, caused him to change his programme; and, to centralize his powers in Utah, he called in all his outstanding settlements, and San Bernardino was abandoned to the wicked. After the departure of the Mormons it became, owing to its isolation, a refuge for the worst classes of the country, and for years a state of affairs bordering on barbarism prevailed. A better class has for years been coming in; and the advent of the railroad and a large influx of eastern population consequent thereon, has steadily and permanently changed the face of affairs, until San Bernardino to-day boasts as peaceable and orderly population as can be found in any county on the coast. This change is especially noticeable in the surroundings. The old box houses have given place to tasty, modern cottages, the uncultured fields to neatly kept farms and thriving orchards; and a demand, constantly increasing, has sprung up for those modern civilizers, music, books, etc.

The climate of the county is as varied as are its physical features. The valley, owing to its inland position, possesses a climate differing from the seaboard towns, the dryness of its atmosphere constituting a marked difference. The spring and fall months are the most enjoyable, the weather then being all perfection. The temperature is steady, the nights cool, the days cloudless, and a pleasant sea breeze which reaches the valley every day from 11 to 2 o'clock, and continuing until sunset, greatly modifies the heat, even of midsummer. In midsummer the days are hotter than in the coast towns, the thermometer ranging from 95 degrees to 105 degrees. The heat, however, is dry, and not at all enervating or oppressive, and work can be carried on in the sun with more pleasure than when the thermometer records 75 degrees to 80 degrees in the east. Sunstroke is a thing utterly unknown in this valley. The regular sea breeze which reaches the valley daily, while it does not affect the thermometer, greatly modifies the heat, which would otherwise be oppressive. The nights are always cool, and a pair of blankets will be found desirable almost every night through the summer months.

One of the great advantages enjoyed by San Bernardino is its abundance of water. Almost surrounded by mountains, numerous streams pour into it from all directions, while artesian water can be obtained almost anywhere in the valley by sinking from 30 to 300 feet. There are now several hundred flowing wells in the valley, affording pure water for the household, as well as for purposes of irrigation. Owing to this abundance of water the farmers have less dread of a dry season than is experienced in other parts of the south, while a failure of crops is a thing wholly unknown.

In resources, this county can boast as great variety as it can of climate and physical features. The principal ones are agricultural products, semi-tropical and deciduous fruits, lumber, wool, cattle, gold, silver, lead, and honey. The staple cereal is barley, which is a winter crop, and in ordinarily good seasons yields very heavily. After the barley is harvested, on damp or irrigable lands, it is succeeded by a crop of corn. Alfalfa, which is the principal hay crop, yields very heavily, and is cut from 4 to 7 times in the season, yielding at each cutting about 2 tons per acre. Vegetables of all kinds attain here an enormous growth, as do all other agricultural products. The cultivation of semi-tropical fruits has, of late years, received a large share of attention, and immense tracts of land have been devoted to their culture. The principal fruit section is in and around Riverside, where there is a stretch of country some 12 miles in length, devoted entirely to semi-tropical fruits; and now the Riverside oranges are famous everywhere, and the result is a large revenue for the fortunate owners of orange orchards. Besides these, Riverside is producing annually large quantities of raisins of a very superior quality, which are gradually but surely taking the place of the foreign article of the best brands.

Besides semi-tropical fruits, all those of more northern latitudes can be raised, and apples and berries raised in the mountains are unsurpassed for size and flavor. Although these fruits grow in the valley, they do not attain that degree of excellence which those grown in the mountains do. Figs, almonds, walnuts, and, in short, all kinds of fruits and nuts do well here.

Large quantities of honey have been, and are continually being shipped from this county to the East and Europe.

The abundance of water, and in consequence of bee feed, renders this business less risky and more profitable here than in those sections where a season of drought may carry away the profits of several good years.

San Bernardino honey ranks with that of San Diego, equal in quality, flavor, and clearness. The mountains around the valley are filled with magnificent forests of pine, cedar, oak, and other timbers.

The supply of good timbers is said to be practically exhaustless. Another of the great industries of the county is that of wine growing.

It is here that the Cucamonga Vineyard is situated, the wines of which have a national reputation. Another large vineyard, the Barton, is located at old San Buenaventura, and numerous others. There are probably at least 3,000 acres planted to vineyards in this county and large numbers of choice vines are being set every year, and it may be safely set down that San Bernardino County will take her place in the front rank as a wine and raisin producing section.

The county is also a large producer of wool, the uncultivated tracts outside of the valley affording excellent pasturage for sheep, but the business is not increasing, and we sincerely hope will not, but cherish the desire and expectation that the thousands of acres of land over which large herds of sheep now find pasturage may be the homes of the vineyardist and orchardist, in these fair southern counties of ours. Most any country can produce *wool*, but a very limited portion of the earth's surface, comparatively, can produce the wine, raisins, and oranges that can and will be grown in time on the sheep pastures of San Bernardino County.

But San Bernardino has something more than all this, she has many and valuable mines within her borders, from whose ledges hundreds of thousands of dollars have already been taken, and which will probably furnish millions more.

There is the Clark District, Ord District, the Holcombe and Bear Valley mines, and the Calico District, that has produced so much wonderful good ore.

And speaking of Calico, the Calico "Print" says there are few idle men in Calico at present. The miners are either employed in the various mines, or chloriding and prospecting for themselves. Chloriding operations are on the increase, owing to the general success in this character of mining. The merchants and all other business men anticipate unusually lively times within the next two or three months, owing to the improvements going on or anticipated.

Woolman & Hoben are working the Comet. They started on a "knife blade" seam which widened out into a very large pocket, from which they took out 3 tons in 20 days which netted over $700 at Barber's mill. They are now running a tunnel, which is in about 16 feet, to tap the tunnel which contains the ore at a depth of 25 feet. They are running a night and day shift. Mr. Myers, of the Pinto, is running a tunnel across the southeast end of the Little V to tap the Pinto. The shaft is down 25 feet and is sunk in an ore deposit.

The old amalgamating pans and other machinery of the Oro Grande Company's mill near Daggett are being replaced by new machinery, and the entire mill is being renovated and improved. The alterations are so gradual as to only partially interfere with the operations of the mill, which is reducing ore from the Waterloo Mine in West Calico. When the proposed addition of 15 stamps is made to the mill, then the present force in the King Mine will be considerably increased, and unusual activity will be seen in and around this valuable property.

Speaking generally, we may say that the progress of San Bernardino County for the past year has never been equaled since its segregation. Large amounts of money have been expended in improvements of various kind. The people have seemingly become more public spirited, and the general welfare of the county has not suffered; but, on the contrary, everything possible has been done to render the different localities more attractive, and at the same time enhance the value of real property. The increase in population has been notably great, and no two previous years have ever witnessed such an influx of immigration as the year of 1885 has seen. This new life is felt in every direction. Hundreds of dwelling houses have gone up all over the county. New enterprises have been started that required no small amount of capital, and thousands of acres of land have been brought under cultivation.

In the City of San Bernardino—she is now a city of the fifth class—many new business buildings and residences have been erected during the past year that would do credit to any city in the State.

San Bernardino is certainly enjoying a building "boom." Many new bridges have been built in and about the town. A free library and an ice factory have been added during the past year, and other improvements too numerous to mention, help to make up the aggregate of a successful year's work.

It is beautifully laid out and the increase in its population has been rapid, it containing at the present time not less than 4,000 inhabitants, with every probability that the number will be greatly increased the present season. It goes without saying that San Bernardino has all of the conveniences and adjuncts of a thriving modern city, such as fine hotels, excellent schools, fine churches, and the opportunities afforded of spending unlimited money in the pursuit of luxury and pleasure.

The second place of importance is Riverside, 12 miles from San Bernardino, and which is a thriving settlement, made up principally of eastern people, mostly of some means, many of whom have located there for their health; some for the pleasure of its mild climate, and some for the purpose of raising semi-tropical fruits, to which the entire surrounding country is devoted.

It has several churches, public school houses, town hall, and other public buildings, and is all the time growing in all the essentials of morals and worldly prosperity.

Colton is another town born of the Southern Pacific Railroad, and now has a population of 500. It derives its importance mainly from the fact of being the depot of San Bernardino, from which place it is distant about 2½ miles. It is soon to have a First National Bank, the necessity of which speaks well for the business future of Colton. The other towns are Banning, Calico, Chino, Cucamonga, Halleck, Lugonia, Ontario, Providence, and Waterman. There has been a large immigration into San Bernardino during the year last past, and still the cry is, "still they come," for in the variety of its resources, the excellence and fertility of its soil, the mildness of its climate—or climates—the opportunities afforded to the capitalist for splendid investments, the advantages it offers the poor man seeking a desirable home, the County of San Bernardino stands second to none.

According to the Assessor's report the county had in 1885:

Real estate other than city and town lots	$3,436,482
City and town lots	431,236
Improvements on real estate other than city and town lots	1,246,022
Improvements on city and town lots	542,750
Personal property other than money	1,418,833
Value of money	34,389

SAN DIEGO.

The County of San Diego is bounded on the north by San Bernardino and Los Angeles Counties; on the east by Colorado River, dividing it from Arizona; on the south by the Mexican territory of Lower California; on the west by the Pacific Ocean. Its area is 14,969 square miles, or more than 9,580,000 acres, being greater than that of either of the States of Massachusetts, Vermont, New Hampshire, New Jersey, or Maryland, and nearly as great as that of Massachusetts, Connecticut, Rhode Island, and Delaware combined. Exclusive of the section embraced in the Colorado Desert and the mountain country lying adjacent on the east, there are over 3,000,000 acres of valley and mountain land adapted to a diversified agriculture and grazing. An erroneous impression has gone abroad that the greater part of the land in this county is embraced in Spanish or Mexican grants. While there are several large grants in the county, their aggregate acreage, as compared with the total area (exclusive of desert lands) is not large. The report of the Surveyor-General in 1880 gave these figures for San Diego County:

Total area	9,980,000 acres.
Mexican and Spanish grants	784,783 acres.
Public lands	8,795,217 acres.

But the grants included in the above statement, many (aggregating an area of 332,941 acres) have long been subdivided. An approximately correct statement of the lands of this county as open to settlement and purchase would therefore be as follows:

Total area (exclusive of desert lands)	3,000,000 acres.
Grants (less those subdivided)	451,842 acres.
Public lands	2,548,158 acres.

Two mountain ranges run through the county from northwest to southeast, dividing it into three districts, each possessing marked peculiarities of climate and soil.

The section lying between the mountains and the sea is exceedingly fertile. It has now three fourths of the population, and exhibits most of the development of the county. This belt varies from 25 to 40 miles in width, and is about 75 miles in length, comprising a series of low, rolling hills, or "mesa" lands, as they are termed—plains and valleys drained by the Tia Juana, Sweetwater, San Diego, San Bernardo, San Luis Rey, and Santa Margarita Rivers, and several smaller streams. These streams are nearly all dry in the summer months for several miles from their outlets. The San Diego is the largest of them, and in the winter and spring is often unfordable.

The middle division of the county lies mainly between the two mountain ranges, and comprises numerous broad and fertile valleys and plains, over which thousands of sheep and cattle graze all the year; and in the mountains are rich mineral deposits and extensive forests of timber. The natural wealth of this important division of the county is very great, and it is capable of supporting a large population. The cereals and all the fruits of the temperate zone here grow luxuriantly, while the cherry and the plum are especially at home.

The third, or desert division, lies east of the second, or San Jacinto Range of mountains. The peak of San Jacinto, at the northern end of the range, is the highest land south of Mount San Bernardino, and rises precipitously to the height of 9,000 feet, and its snow crowned summit appears in strange contrast to the sweltering desert which it overlooks. Along the eastern base of this range extends the great Coahuila Valley, 50 miles in length by 10 in width, connecting southerly with the Valley of the New River, which flows from the Colorado in time of freshets and fructifies the fertile lands along its bottoms. The Southern Pacific Railroad crosses this division, entering San Diego County from the San Gorgonio Pass, and running thence across the desert southeasterly to Yuma, about 160 miles. The mountain spurs along the west side of the Colorado are rich in the precious metals, and mining operations have been carried on there for several years. The old military post of Fort Yuma, in the extreme southeastern corner of the State, is situated on the San Diego side of the Colorado, on a commanding bluff. The town of Yuma, Arizona, stands on the opposite bank.

The leading products of the county in point of value are, at the present time, wheat, wool, and honey, in the order named. We say *at the present time*, because fruit and vine growing is rapidly becoming the chief interest in this county, as nature designed it to be. During the year just closed the grain crop was very small, owing to the extraordinary rains of the winter and spring, the ground being so soaked that plowing was impossible to any extent. The wheat crop of the preceding year was 21,600,000 pounds; barley, 5,400,000 pounds; wool, 1,500,000 pounds; honey, 1,291,800 pounds. The honey interest is very important, San Diego being the chief honey producing county in California. The honey yield of last year amounted to 2,679,747 pounds, of which nearly 2,000,000 pounds were exported. Some idea of the variety of the productions of the county may be obtained from the following statement of shipments per steamer during the year, taken from the books of the Pacific Coast Steamship Company: Wheat, wool, dried fish, hides, whale oil, beans, butter, flour, eggs, olives, seeds, salt, honey, dried abalone, abalone shells, oranges, lemons, limes, raisins, potatoes, dried grapes, sweet potatoes, sand, rags, cocoa mats, orange trees, lime trees, guava trees, horses, sheep, turtles, onions, bacon, buckwheat, flax seed, sea otter skins, leather, and millet seed.

Stock raising, 15 years ago almost the exclusive interest of the county, is still carried on, but has long ceased to be a leading interest. An estimate, believed to be very nearly accurate, of the live stock of San Diego County, is as follows: Horses, 6,755; mules, 1,452; horned cattle, 23,548; sheep, 242,929; hogs, 14,815.

Fruit Growing.

San Diego was the last of the counties of Southern California to abandon stock raising as its leading interest. The immigration of 1868, 1869, 1870, and 1871 was drawn hither by the railroad inducements of that period, and was mainly to the town; the interior was settled slowly. Many of the old residents were skeptical regarding the adaptability of the soil and climate to fruit culture. Yet there were some, even in the earlier days, who believed that nature intended those lands for something better than cattle and sheep pastures. Time has fully justified their belief. While San

Diego County began late, she has advanced rapidly. There are to-day in this county, according to the latest statistics: Grapevines, 244,896; apple trees, 22,725; peach, 25,520; pear, 19,125; plum, 3,258; cherry, 917; nectarine, 880; fig, 69,194; quince, 2,860; apricot, 86,295; orange, 96,240; lemon, 57,100; olive, 46,000; prunes, 1,120; almond, 10,800; walnut, 21,385; making a grand total of 728,311. Twelve years ago the total was less than 2,500. From reports of local nurserymen, it is believed that the number of fruit trees planted the present year will be at least as great as in any previous year.

For a long time the notion prevailed that the chief obstacle to fruit culture in San Diego was the small comparative amount of rainfall and the expense of irrigation. Experience has demonstrated this notion to be fallacious. In all the valleys, such as the Tia Juana, Cajon, Sweetwater, San Dieguita, San Luis Rey, etc., water is easily obtained within 6 to 18 feet of the surface, and trees frequently thrive without irrigation. These soils are remarkable for their retention of moisture. It has been found, too, that the "mesa," or uplands, which were formerly thought of little value, produce the very choicest grapes and fruits, with no other irrigation than can be had at comparatively small expense from ordinary wells. We mention here, as an example of what may be done with a very small piece of land, the results obtained by the High Bros., on their 5-acre tract in the Chollas Valley, about 2 miles from the City of San Diego. They have orange, lemon, lime, apple, pear, fig, apricot, and other fruit trees, guava bushes, grapevines (several varieties), vegetable garden, melon patch, blackberry, strawberry, and raspberry beds. Their irrigating facilities consist of 2 wells, with windmills. The two brothers do their own work. Their net income from this tract (supplying the market of San Diego with fruit and vegetables) is from $1,500 to $2,000 a year. Last season, from less than 100 feet square, they sold over $400 worth of blackberries; and, from a still smaller area, over $100 worth of guavas. This is not a rare instance. The place of Albert Haffenden, and a half a dozen others in the same valley, might be cited. In Paradise and Spring Valleys, 5 and 10 miles from town, numerous similar small tracts may be found. The condensation required in preparing this description limits us to the citation of merely a specimen case.

The above is taken from a paper prepared by Douglass Gunn, Esq., of San Diego, for the Chamber of Commerce of that city, and is a fair and by no means exaggerated statement of the resources and capabilities of a country destined by the natural advantages it enjoys to become one of the very first counties in the State. In her fertile valleys (of which there are more than thirty, from 2 to 15 miles long, embracing from 20,000 acres to a few hundred), there will be some of the finest vineyards and orchards the world can produce, and it is a matter of wonder with us that people in search of these kinds of lands give the go-by to San Diego County, and finally pay from four to ten times as much for no better lands or climate, and in counties with no such assured future as belongs of right to San Diego.

San Diego Bay is one of the few great harbors of the world, and is one of the only two land-locked harbors on the Pacific Coast of the United States, carrying 23 feet of water over the bar at lowest tide, and of capacity to accommodate 1,000 ships of the largest class.

There are thousands of acres of the choicest fruit lands not far distant from the City of San Diego, and any one who purchases these lands at the prices now asked for them cannot, in the natural order of things, fail to realize a large advance, all the time enjoying a delightful and profitable home. The law of action and reaction is the same; undue excitement is surely followed by a corresponding depression, and in land matters a great inflation of prices predicated on something which does not come to pass according to prediction is very apt to be followed by a disproportionate and unreasonable disgust and depression.

This very thing happened to San Diego. In 1867 the project of a railroad from the Mississippi Valley to the Pacific, on the twenty-third parallel (which had slumbered during the period of the civil war) was revived. As the proposed Pacific terminus of the road, San Diego came immediately into prominence. A great many people will remember the talk about San Diego eclipsing the City of San Francisco, and the prediction was made by a few over sanguine and addle-pated individuals that grass would grow in the streets of the metropolis as she sat on her hills, a very Niobe, and watched the rising glories of this southern metropolis—on paper. What an ovation was given to Thomas Scott, who was supposed to be the beneficent genius of San Diego, and how he was wined and dined, and what magnificent prophecies were indulged in, and after dinner speakers beheld their beloved city magnified out of all proportion by a mirage-producing champagne. As a result of all this, a great deal of capital was invested in city lots at fancy prices, the sanguine owners holding them for the great rise which would surely come when the railroad was built. While the road was not built, and the natural reaction came, and hundreds became disgusted with paying taxes and sold their lots for a song, and took their revenge by cursing and maligning San Diego, and the name was not a savory one in certain portions of the East. It became too much the fashion to sneer at San Diego, but, while she has suffered through hopes betrayed and prophecies unfulfilled, she cannot be sneered down, for no sneers or calumny can ever be potent enough to sneer away her magnificent harbor, her almost faultless climate, and exceptional agricultural resources. And during the past year both the City and County of San Diego have taken a new lease of life, and both have enjoyed a season of prosperity unexampled in her previous history. A County Fair was held in the city last season, the exhibits in which opened the eyes of her own citizens, and won encomiums from all visitors. This Fair did more to remove all doubt from the people of the county as to the future than any other thing that had happened.

The practical results of agriculture, horticulture, and manufactures were shown in profusion, and in the best quality. Julian, El Cajon, Sweetwater, Mission Valley, Mesa Grande, Elsinore, and San Jacinto, furnished the principal fruits and cereals, and these are sections which may be regarded as having experienced the greatest development during the year. San Jacinto especially, has made a great advance in population, and is now the second place in importance in the county.

The seaside resort of Oceanside, on the California Southern Railroad, has advanced from a sort of camping place to an embryo city of nearly a hundred handsome cottages, and is still rapidly growing.

At Elsinore a number of rich mineral discoveries have been made, and a fine quality of pottery is now made there, the deposit of pottery clay being almost inexhaustible, while coal to burn the kilns is dug from the same mine at a nominal cost.

Julian has regained some of her old time mineral reputation. The Stonewall is the best claim, and has made a gold bullion export of nearly $50,000 during the few months since it was reopened. The ocean commerce of this port has improved. On account of the building improvements in the city, double the ordinary number of schooners have arrived in the bay with lumber. It is estimated that about 20,000,000 feet of lumber were landed here in 1885. The greatest improvement has been noticeable in the city. About 200 buildings were erected last year, at a cost of $568,000 as compared with 28 buildings, at a cost of $234,000, in 1884. The rapid progress of the city has been mainly due to the fact that she has always been the destined—and is now the actual—Pacific Coast terminus of the great Santa Fe Railroad route, the middle route to this coast. In consequence, business property has risen 100 per cent, and San Diego is a very lively city. Freight and passenger rates from the East are the same to San Diego as to San Francisco. One of the most important new enterprises is the purchase and development of the peninsula of San Diego—a tract of 3,000 acres of land, lying opposite the city, across the bay—where it is proposed by the syndicate of capitalists to make a city on the ocean beach. Work has already begun on a street railroad, and the City Trustees have contracted with an electric company for four electric light masts. The population of the county is estimated to be 18,000, as compared to 13,000 one year ago.

The other towns and precincts are: Alpine, Bear Valley, Ballena, Bernardo, Cajon, Fall Brook, Hope, Jamul, Jamacha, Lyons, Monument, Malava, Mount Fairview, Montserratte, Milquettay, National, Otay, Potrero, Pala, Poway, San Dieguita, San Jacinto, San Luis Rey, Spencer Valley, Sweetwater, and Temecula.

The assessable value of real estate in the city and county in 1885, was $7,071,824.

SAN FRANCISCO.

It would be quite impossible in a series of sketches, limited in extent as these must be, to devote such space to a description of San Francisco as would make it in any way complete. Every one knows that San Francisco County contains San Francisco City, and little else; that it is the smallest county, and yet the most important of the State; that its wealth is prodigious; that the city is the metropolis of the West; that it is as cosmopolitan as Cairo, and as lively as Paris; that it has sprung into existence like the crop from the dragon's teeth, ready armed and mighty; that it has a future as glorious as its past has been astonishing; that its harbor has been crowded with shipping from all parts of the world; that the Golden Gate leads to it; riches and sin jostle each other on the streets, and that its climate is like none other in the world. All this, and much else, is well known to the thousands and tens of thousands who have ever turned their eyes westward, or have read of that wonderful city that overlooks the Pacific. Yet, as this volume is intended to furnish information to those who seek it in a concise form, we furnish such facts and figures as are thought best calculated to suit these "seekers after truth."

San Francisco City and County has an area, then, of a little over 40 square miles, and occupies the end of a hilly promontory. The harbor was discovered from the land in 1769, by a party of adventurers, who were seeking Monterey Bay, but it was not until 1776 that the Mission of Dolores was founded by two monks of St. Francis de Assisi. Until 1836 the settlement was clerical, but in that year the village of Yerba Buena was built by the Mexican Government. Ten years later Commodore Montgomery took the place in the name of the United States Government, and the plan of the present city was laid out. It would have been a city on paper for some time, had not the discovery of gold taken place. Then ships laden with diggers and fortune hunters came thronging through the Golden Gate, and the place grew as if by magic. The Pacific Mail Steamship Company incorporated, other lines were added, the bay and rivers were navigated by steamers, and finally, in 1869, the Central Pacific Railroad was built, and the East and West were united. The Bay of San Francisco is 65 miles in length, 40 miles being south of San Francisco, and 25 miles, known as San Pablo Bay, extending north—Suisun Bay, connected with and extending east of San Pablo Bay, is 20 miles long, and the average width of San Francisco Bay, as a whole, is 8 miles, the bay shore line being over 300 miles in length. The entrance to the bay—the Golden Gate—is a strait, 6 miles long and 1 mile wide, a fitting entrance to the magnificent sheet of water, the finest harbor in the world, within.

There are several islands in the bay, being government property, and Goat and Angel Islands have their garrisons, while rocky little Alcatraz, just opposite the Golden Gate, has the Government prison, and is still more extensively fortified. The great rivers, Sacramento and San Joaquin, empty into Suisun Bay, and the bay and river traffic, with its steamers, its growing towns, and its wharves, is an extensive trade of itself. The most important bay inlets, affording anchorage to vessels of large size, are at Oakland, Benicia, Vallejo, and Saucelito.

Suburbs.

The environs of San Francisco are charming in the extreme, and include Oakland, with Alameda and Berkeley, a suburb and a rival city in one; and San Rafael, Saucelito, and other lovely sites on the north bay line, these spots being reached by ferry; while down the peninsula, and reached by railroad, are San Mateo and Belmont, containing some of the most famous and costly residences of San Francisco millionaires; and the fair Santa Clara Valley, with its Garden City of San José. Over all this extensive territory have business men fixed their homes, going and coming morning and evening, the established conveniences or rapid railroad travel being such that some of these distant points are reached as quickly as would be a house in some points of the Mission and Western Addition of the city, by the owner, who so enjoys a twofold, or city and sylvan existence.

These neighboring country places are also the resort of summer excursionists, private parties carrying luncheons, and picnic parties with their bands of music, going in the morning and returning in the evening, almost every day in the season; sometimes spending the day upon a quiet beach or hill slope; sometimes in one of the public gardens or parks, with its dancing floors provided, a dozen of which are located at the different towns around the bay, within a few hours' trip from San Francisco.

West of the city limits, upon the peninsula, are the famous Cliff House and the well known Golden Gate Park. The former is reached by a drive of some four miles, having a fine view of the Golden Gate to the right, and of the ocean in front, during the most of the way. The building is a long, low wooden structure on the cliff, which is at the water's edge; and a few hundred yards in front of it is the Seal Rocks, just out of the water, covered with the finny tribe, clambering clumsily about or taking plunges into the breakers, and all the time uttering their strange cry—a howling bark. A favorite way to return from the cliff is to follow the road by the beach, and to come through Golden Gate Park, with its miles of fine driving roads, its picturesque paths for pedestrians, its conservatory stocked with the rare and the beautiful among growing things, and its other attractions, so rapidly and wonderfully wrought out among the drifting sand dunes.

The rocky Farallones, 30 miles outside of the Heads, ought not to be entirely overlooked, well known landmarks as they are. They are frequently visited by excursions or yachting parties, whose members find amusement in climbing about and noticing the thousands of sea fowls that make their homes on these rocks, or in watching the sea lions in their haunts at one side of the islands. The Farallones are also visited by men who gather for sale great quantities of the sea bird eggs, and by hunters who capture the sea lions to ship them East and to Europe as curiosities, the price realized for the clumsy monsters being generally in the neighborhood of a thousand dollars.

San Francisco in common with other places, has felt the universal depression in business, and her capital has felt the nervousness occasioned by the labor troubles, but to a less extent than our eastern cities, but the bottom has been reached; confidence is being rapidly restored, capital has got over its scare, and improvements are being projected and buildings are going up on every hand, and there can be no doubt that San Francisco is rapidly forging ahead to take her place as one of the few great cities of the world. She is rapidly outgrowing her provincialism, her shopkeepers are giving place to great merchants, and her citizens generally seem to be actuated by a larger public spirit, and are discounting the future to a greater extent than ever before.

To be a great mart of commerce it is not essentially necessary to be a great manufacturing center, but great commercial cities nearly always are, as their unparalleled facilities for bringing together vast quantities of raw material and obtaining it at the lowest possible rates, for finding skilled workmen and capital, for producing in large quantities and then finding a market, give them opportunities that none others have. Hence London and New York have become vast industrious human hives of busy industry, though originally only places where the products of the earth were exchanged. And so also will it be with San Francisco. As her commercial importance increases so will her manufacturing facilities, and her list of industries slowly but surely expand.

Her increase in population will be more rapid every year. At the date of the census it was given at 233,959, or 84,486 more than in 1870, an addition of nearly 6 per cent every year. It is not too much to assume that the same rate has since continued. Therefore, we should have at date, roughly calculated, not less than 300,000. It is very certain, however, that the population of San Francisco was understated by not less than 20,000 at the time the census was taken, as it is then that all who can, flock to the country. And the extensive additions made to the extent of the city since, make it certain that we have at least 320,000 to-day dwelling within urban limits. At the same rate of increase we should have, say, 430,000 people in 1890, and 650,000 in 1900. Outside of urban limits and lying along the shores of the bay, there are not less than 60,000 more living in towns and cities that for all practical purposes may be reckoned as San Franciscans, so that we have 400,000 within call of an urban and suburban population. Add to the population of the neighboring counties, and without taking into account any other portion of California, there is here a population exceeding that of the whole State in 1870, and we have now in the borders of California more than the whole coast contained 15 years ago. Our home market, the most important of our markets, is therefore rapidly expanding and will strengthen us to command other and more distant markets. Besides, the whole of the State may, in a sense, be considered as a San Francisco workshop. Hence, all its people look here in the first place for capital or to sell the product of their industry.

With such a great population as is centered within 12 miles of our City Hall, there must necessarily be large numbers of people possessed of the requisite skill and knowledge to produce any of the articles of manufacture developed by the industry of the modern world. It would be easy to write extensively on a theoretical basis, but the following Assessor's report for 1885 will give a more correct idea of what we are as a city than anything that we could write, and hence we conclude the article with it, certain that it will be extensively read by all at all anxious to know what we are doing as a city:

Agricultural Implement Manufactories—2.

Men employed	80
Value of manufactures	$325,000

Air Compressors Manufactories—2.

Men employed	23
Value of manufactures	$15,000

Artificial Stone Manufactories.

Men employed	85
Value of manufactures	$200,000

Axle Grease Manufactories—2.

Men employed	11
Resin consumed yearly, barrels	1,600
Butter consumed yearly, fbs.	40,000
Chemicals consumed yearly, fbs.	33,000
Value of manufactures	$60,000

Bag Manufactories—3.

Men, women, and boys employed	300
Number of bags manufactured	8,000,000
Value of manufactures	$1,500,000

Barrel Manufactories—3.

Men and boys employed	300
Barrels, half barrels, and kegs made annually	527,260
Horse-power of engines	112
Barrels made for use of sugar refineries	200,000
Syrup kegs made by tub and pail manufacturers	22,000
Aggregate value of manufactures	$390,000

Bed Spring Manufactories—4.

Men employed	35
Coppered wire used, tons	216
Value of manufactures	$140,000

Bedding Manufactories—7.

Men employed	110
Value of manufactures	$360,000

Bedstead Manufactories (Iron)—2.

Men employed	16
Value of manufactures	$15,000

Bellows Manufactories—2.

Men employed	5
Bellows manufactured	1,300
Value of manufactures	$15,000

Billiard Table Manufactories—3.

Men employed	42
Billiard tables made annually	425
Value of manufactures	$82,500

Boots, Shoes, and Slipper Manufactories—138.

Men, women, and boys employed	3,500
Value of manufactures	$5,900,000

Box Manufactories (Cigars)—3.

Men, women, and boys employed	260
Value of manufactures	$405,000
Number of boxes made yearly	5,000,000

Box Manufactories (Paper)—3.

Men, women, and boys employed	95
Number of boxes made yearly	2,500,000
Value of manufactures	$75,000

Box Manufactories (Wooden)—7.

Men employed	350
Horse-power of steam engines	330
Lumber used, feet	16,000,000
Value of manufactures	$1,000,000

Brass Foundries—8.

Men employed	350
Value of manufactures, including copper	$535,000

Breweries—33.

Men employed	450
Hops consumed annually, pounds	832,000
Barley consumed annually, tons	28,000
Beer made annually, barrels	418,000
Aggregate value of manufactures	$2,450,000

Broom Manufactories—8.

Men employed	75
Value of manufactures	$210,006

Brush Manufactories—6.

Men employed	50
Value of manufactures	$80,000

Candle Manufactories—2.

Men employed	60
Candles manufactured, boxes	120,000
Value of manufactures	$300,000

Carriage and Locomotive Car Spring Manufactories—1.

Men and boys employed	15
Springs made, tons	15
Value of manufactures	$25,000

Carriage and Wagon Manufactories—30.

Men employed	290
Carriages and wagons made annually	550
Aggregate value of all branches	$200,000

Chemical Works—2.

Men employed	40
Nitrate of soda used, tons	1,200
Sulphur used, tons	1,300
Nitric acid produced annually, pounds	1,600,000
Sulphuric acid produced annually, pounds	7,000,000
Muriatic acid produced annually, pounds	500,000
Value of manufactures	$400,000

Cigar Manufactories—223.

Men, women, and boys employed	8,000
Cigars made annually	104,000,000
Cigarettes made annually	15,000,000
Value of manufactures	$4,850,000

Clothing Manufactories—17.

Men, women, and boys employed	19,000
Value, including overalls, shirts, and underwear	$3,750,000

Coffee and Spice Mills—16.

Coffee ground and roasted annually, pounds	3,980,000
Chocolate made annually, pounds	450,000
Spices ground annually, pounds	656,000
Value of manufactures	$900,000

Coffin Manufactory—1.

Men employed	15
Value of manufactures	$25,000

Coppersmith—1.

Men employed	33
Value of manufactures	$126,000

Cordage and Rope Manufactory—1.

Men employed	150
Hemp rope manufactured, tons	3,000
Horse-power of engines	250
Value of manufactures	$600,000

Cracker Manufactories—3.

Men and women employed	150
Horse-power of engines	110
Value of manufactures	$620,000

Cutlery Manufactories—2.

Men employed	65
Value of manufactures	$55,000

Dry Docks (Floating)—2.

Men employed	15
Capacity of docks (one 1,800 and one 800 tons)	2,600

Dry Dock (Stone)—1.

Length of excavation in solid rock, feet	450
Width of top, feet	120
Depth, feet	30
Width of entrance, feet	90
Capacity of length, feet	425
Capacity of drawing	22
Capacity of pumps for cleaning, per hour, cubic feet	325,368
Tubular boilers of 4-inch tubes	4
Dimensions of each boiler, diameter in inches	25
Fire surface of boilers, square feet	3,800
Men employed	6
Total cost of work	$675,000

Electric Machinery Works—1.

Men employed	20
Value of manufactures	$10,000

Elevator Manufactories—3.

Men employed	20
Value of manufactures	$75,000

Flour and Feed Mills—8.

Men employed	175
Flour made annually, barrels	408,000
Hominy made annually, tons	320
Buckwheat and rye flour annually, tons	585
Oatmeal and groats annually, tons	1,800
Cornmeal and farina annually, tons	2,310
Feed barley annually, tons	17,300
Cracked wheat annually, tons	862
Split peas annually, tons	110
Graham flour annually, tons	5,525
Cracked corn annually, tons	1,187
Ground feed annually, tons	4,050
Pearl barley annually, tons	270
Aggregate value of manufactures	$2,230,000

Foundries, Boiler and Iron Works—17.

Men employed	2,000
Pig iron, annually, tons	24,000
Bar iron used annually, tons	25,600
Rivets used annually, tons	480
Horse power of engines	2,100
California iron used to June thirtieth, tons	8,000
Aggregate value of manufactures	$5,500,000

Fringe Factories—2.

Men and women employed	81
Value of manufactures	$86,000

Fur Manufactories—3.

Men and women employed	170
Value of manufactures	$500,000

Furniture Manufactories—10.

Men employed	1,800
Lumber used annually, feet	6,300,600
Value of manufactures	$2,000,000

Gas Works—2.

Men employed (about)	460
Capital stock	$12,000,000

Glass Cutting—3.

Men employed	30
Value of manufactures	$60,000

Glass Works—1.

Men and boys employed	180
Furnaces	2
Pots	14
Aggregate value of manufactures	$175,000

Glove Manufactories—12.

Men and women employed	140
Value of manufactures	$200,000

Glue Manufactories—2.

Men employed	41
Glue made, tons	220
Neatsfoot oil, gallons	30,000
Value of manufactures	$116,000

Gutta Percha and Rubber Manufactories—2.

Men employed	12
Sets machinery	2
Value of manufactures	$35,000

Hat and Cap Manufactories—18.

Men and women employed	80
Value of manufactures	$275,000

Harness Manufactories—50.

Men employed	440
Value of manufactures	$1,500,000

Hose and Belting—4.

Men employed	30
Hose made annually, feet	1,800
Belting made annually, feet equal to one inch	700,000
Aggregate value of manufactures	$150,000

Ice Manufactories—3.

Men employed	20
Tons made annually	1,600
Capital invested	$90,000

Ink and Mucilage Manufactory—1.

Men employed	13
Number of dozens made annually	13,000
Value of manufactures	$18,000

Iron Working Machines—2.

Men employed	35
Value of manufactures	$125,000

Japanning and Galvanizing Manufactories—2.

Men and boys employed	20
Value of manufactures	$48,000

Jewelry Manufactories—16.

Men employed	165
Value of manufactures	$600,000

Laundries (White)—105.

Men, women, and boys employed	935

Laundries (Chinese)—186.

Men employed	1,300

Last Manufactories—2.

Men employed	14
Horse-power of engines	22
Lasts manufactured annually	29,000
Value of manufactures	$200,000

Lead Pipe and Shot Manufactory—1.

Men employed	30
Lead pipe and shot, annually, tons.	1,750
Horse-power of engines (2)	500
Value of manufactures	$200,000

Lead Smelting Works—1.

Men employed	116
Horse-power of engines	60
Value of manufactures	$400,000

Linseed Oil Works—1.

Men employed	55
Oilcake, tons	4,000
Capacity of works annually, gallons	8,000,000
Value of oil	$500,000
Value of cake	$100,000

Macaroni and Vermicelli Factories—4.

Men and boys employed	54
Macaroni and paste made annually, boxes	225,000
Flour used annually, barrels	9,000
Horse-power of engines	110
Value of manufactures	$155,000

Malt Houses—6.

Men employed	100
Grain malted annually, tons	30,000
Value of products	$160,000

Marble Works—35.

Men employed	120
Value of manufactures	$320,000

Match Factories—4.

Men employed	120
Matches made annually, gross	30,000
Value of manufactures	$100,000

Mirror Manufactories—2.

Men employed	9
Number of square feet manufactured	5,500
Capital invested	$190,000

Musical Instrument Manufactories—2.

Men employed	25
Value of manufactures	$40,000

Oakum Manufactory—1.

Men employed	20
Bales made annually	13,000
Value of manufactures	$52,000

Oilcloth Manufactories—4.

Men employed	40
Value of manufactures	$80,000

Pickle and Fruit Preserving Manufactories—12.

Men and women employed	2,000
Fruit and meat put up, doz. cans	750,000
Pickles put up in kegs	110,000
Aggregate value of manufactures	$1,700,000

Provision Packing—2.

Number of men employed	250
Meats packed annually, barrels	9,000
Pork packed annually, barrels	10,500
Ham and bacon, pounds	2,700,000
Lard, pounds	2,300,000
Tallow, pounds	1,000,000
Value of investment in real estate, fixtures, etc.	$165,000
Aggregate value of product	$1,900,000

Rolling Mill—1.

Men employed	550
Horse-power of engines	725
Scrap iron used, tons	30,000
Coal consumed, tons	21,000
Aggregate value of manufactures	$1,880,000

Safe and Vault Works—4.

Men employed	20
Bar and plate iron used, tons	53
Horse-power of engines	60
Steel used, tons	38
Aggregate value of manufactures	$96,000

Salt Works—3.

Men employed	32
Run of stones	8
Number of tons annually	31,000
Value of salt grounds	$255,000

Sash, Door, Blind, and Finishing Manufactories—15.

Men employed	1,550
Horse-power of engines	1,050
Lumber consumed, feet	10,055,000
Aggregate value of manufactures	$5,010,000

Saw Manufactories—2.

Men employed	38
Horse-power of engines	44
Steel used annually, tons	57
Value of manufactures	$110,000

Ship Yards—4.

Men employed	200
Number of steamers, barges, and other vessels built	35
Tonnage	6,100
Value of crafts	$503,000

Shirt Manufactories—7.

Men and women employed	2,550
Value of manufactures	$1,000,000

Silverware Manufactories—3.

Men and women employed	40
Value of manufactures	$145,000

Soap Manufactories—17.

Men employed	190
Soap made annually, pounds	15,256,000
Value of manufactures	$715,000

Soda Works (Bi-carb. Soda and Saleratus)—1.

Men employed	10
Sal soda manufactured, tons	800
Saleratus manufactured, tons	400
Value of manufactures	$100,000

Sugar Refineries—2.

Men employed	360
Sugar (raw) used, pounds	80,000,000
White sugar made, pounds	50,000,000
Yellow sugar made, pounds	28,000,000
Syrup made, gallons	450,000
Aggregate value of manufactures	$8,700,000

Tanneries—43.

Men employed	335
Horse-power of engines	172
Bark used annually, cords	5,000
Hides of all kinds	360,000
Value of manufactures	$1,700,000

Tinware, Tin Box, and Can Manufactories—4.

Men and boys employed	180
Value of manufactures	$525,000

Type Foundries—3.

Men and women employed	40
Value of manufactures	$39,000

Vinegar Manufactories—2.

Men employed	22
Vinegar made annually, gallons	1,600,000
Value of manufactures	$255,000

White Lead Factory—1.

Building 45x275, four stories, brick; men employed	75
Number of tons manufactured	3,000
Capital employed	$290,000

Willow and Woodenware and Basket Manufactory—1.

Men employed	32
Value of manufactures	$250,000

Windmill Manufactories—2.

Men employed	13
Mills made annually	150
Value of manufactures	$40,000

Wine and Beer Cask Manufactory—1.

Men employed	75
Number of casks made annually	3,000
Value of manufactures	$200,000

Wire and Wire Rope Manufactory—1.

Men employed	50
Horse-power of engine	125
Amount of wire consumed annually, tons	800
Value of manufactures	$370,000

Woolen Mills—2.

Men and women employed	1,500
Number of power looms	162
Cards, sets	60
Frames for knitting underwear	28
Frames for knitting hosiery	24
Spindles	21
Knit underwear, dozens	6,000
Blankets made annually, pairs	80,000
Hosiery, pounds	25,000
Wool used, pounds	5,400,000
Cloth and tweed, yards made	600,000
Flannels, yards made	1,600,000
Aggregate value of manufactures	$1,900,000

SAN JOAQUIN.

San Joaquin County is bounded on the north by Sacramento County, east by Amador, Calaveras, and Stanislaus, and west by Sacramento, Contra Costa, and Alameda Counties. The following description of the county is from the "Agricultural Features of California:"

The eastern portion of San Joaquin County lies at the foothills of the Sierra, while the extreme southwestern part rests upon the Coast Range mountains, the central and greater area being thus included in the great valley of the San Joaquin River, which stream flows northwestward, the Sacramento River forming the northwest boundary of the county. Other large streams, such as the Mokelumne, Calaveras, and Stanislaus Rivers, all flowing westward, drain the eastern part of the county, and several streams occur on the west. The surface of the country, with the exception of the two extremes mentioned, is quite level, and is dotted over with scattering growth of white and a few live oaks as far south as French Camp Slough, beyond which there is but an open plain from San Joaquin River eastward for 15 miles. The larger streams are mostly lined with a growth of cottonwood, willows, and sycamore.

This county, situated as it is at the point where the Sacramento and San Joaquin plains unite, or rather at the foot of each plain and in the center of the great valley, naturally possesses a variety in its agricultural features. The lands of each valley are to some extent represented, and we find on the west, along the rivers, a broad region of tule lands and marshes, on the east of the foothill belt, extending through the county, while in the broad valley plain the alluvial loams of the Sacramento Valley reach southward nearly to Calaveras River, and the lands of the San Joaquin Valley extend northward as far as French Camp Slough, the two being separated by a broad belt of black loam and adobe lands reaching from the foothills westward to the tule lands.

Tule Lands.

West of Stockton to the county line, and from a point some 15 miles south to the northwest corner, there is an immense tract of tule lands (estimated at 200,000 acres), through which the San Joaquin and Sacramento Rivers find their way in many channels to their junction and to Suisun Bay. Numerous islands occur in this region, but are subject to overflow from the rivers; they have rich soils, and when properly leveed are under cultivation. Robert's Island, with its area of about 67,000 acres, is the largest. Eastward the tules are not so low, and by a system of levees they have been largely reclaimed and are under cultivation.

The Valley Lands.

A strip of sandy, alkali lands, with a width in places of about 1½ miles, borders the tules on the east. It is covered with salt grass and scattering willow growth.

The northern part of the valley, from the county line south to within 2 miles of Calaveras River, has a sandy loam soil, quite deep, and is watered by Mokelumne River, whose wide, bottom land is timbered with willows, sycamores, and oaks. The surface of the country is very level, gradually rising eastward to the foothills, and is dotted over with a growth of white and some live oaks. This growth is said to have been originally very dense, but the entire country is now under fence and has been cleared. As the foothills are approached the lands become darker and richer, and form a plateau some 15 or 20 feet above the river bottoms. The western part of this sandy loam country is the great watermelon region of the State, but small grain is produced abundantly. The eastern portion has been but recently furnished with transportation facilities by the building of the San Joaquin and Nevada Railroad.

The central portion of the valley, as has already been stated, is a black loam or adobe region, and forms the divide between the two great valley regions, reaching from the foothills westward to the tule lands of the rivers. Its surface is very level, dotted over with white oak trees, is almost entirely under fence, and is largely under cultivation. The northern limit of the adobe region lies 2 miles north of Calaveras River, eastward to the foothills; the southern limit is along French Camp Slough for several miles, and thence southeast to Farmington and Oakdale, in Stanislaus County. The western part of the region has a width of about 10 miles, in the middle of which is the City of Stockton. The adobe soil is said to be from 5 to 10 feet deep, and is interspersed with tracts of a light loam, which yields about thirty bushels of wheat per acre. A strip of alkali land reaches from the border of the tules, near Stockton, northeastward to the Calaveras River, a distance of about 14 miles. Its width is from 1 to 2 miles, though within this belt it occurs only in spots or small tracts a few inches below the general level of the adobe lands, often covered with salt grass, and entirely unproductive.

The southern part of the valley, or that portion lying south of French Camp Slough and west from the San Joaquin River to the black lands of Farmington, is level, sandy, and treeless, mostly unproductive, unless irrigated, and is the extreme northern representative of the similar lands of the San Joaquin plains of the counties south. On the west of the river, to the Coast Range, and south of the tules, these sandy lands also occur, interspersed with much black adobe, and from lack of irrigation facilities are also uncultivated.

The foothills form a narrow belt within this county, along the eastern boundary, the change being so gradual from the valley proper into the undulations that are first observed that the line of separation is with difficulty defined. Clements, Bellota, and Farmington are, however, near this line, which thus makes a curve eastward, and, after passing Farmington, turns again southeastward into Stanislaus County. Its surface is rolling and mostly broken, its hills partly covered with trees and brush, and have red, gravelly soils; the valleys are mostly treeless, except along some of the creeks, and having soils varying from dark or light loams to red, gravelly lands. Beds of rounded bowlders often fill the beds of the creeks. In the southern part of the region the red lands seem to predominate. This foothill region is but little under cultivation.

The county is comparatively well settled, the average being 17.9 persons per square mile, while in the percentage of lands under cultivation (52.8) it ranks highest in the State, with an average of 338.4 acres per square mile. Wheat and barley are the chief crops, and transportation is afforded by the Southern Pacific Railroad to San Francisco and Sacramento, as well as across the continent to the Atlantic States.

San Joaquin County has a population of about 32,000, including 2,000 Chinese, and has 876,800 acres under assessment. The assessment roll, compared with that of 1884, is as follows: Total assessment for 1884, $40,017,847; for 1885, $38,124,896; on personal property for 1884, $5,877,582; and for 1885, $6,068,311. The reduced assessment of 1885 is due to the depreciation, in market value, of farming lands, because of the light crops raised during the past dry year and the ruling low price of wheat. The county is given almost wholly to wheat growing, although some of the land promises the highest possible results for fruit cultivation. No new land has been placed under cultivation this year, the productive acreage having been covered long ago. Vine growing has not increased perceptibly, and not more than 100 acres has been added to the fruit area. The tule lands are being given over to pasturage, as it has not been found to pay to farm them. During the last year there have been many failures among farmers, influenced largely by the reckless and almost indiscriminate indorsement of notes above the value of securities.

Among the improvements, the Shippee Harvester and Agricultural Works, and the Houser Agricultural Works, have added largely to their establishments, costing $100,000 in Stockton, $50,000 more in the county. The Stockton Street Railroad has been extended 1⅛ miles, to Good Water Grove. The county is to build a new Court House, estimated to cost $300,000, and the city is arranging plans for a sewerage scheme, also to cost $300,000. While farming land has suffered a decrease in value, city property has advanced, and real estate is held firmly. Local manufacturers are flourishing, and include the Sperry and Crown flour mills, each with a capacity of 1,000 barrels per day; the Lane mills, producing principally for local consumption; paper mills, woolen mills, Salz's large tannery, and a full complement of other manufacturing industries. Stockton, at the head of Stockton Slough, is a natural distributing point for Amador, Calaveras, Tuolumne, Stanislaus, and Merced Counties. It has a warehouse capacity of over 100,000 tons, and receives grain from every county in the valley. Its population is estimated at 15,500. Its vote at the last local election was 2,644.

Lodi, about 14 miles from Stockton, has a population of about 1,100, with a flouring mill, a planing mill, and a good warehouse. It is energetic and prosperous. Clements, on the line of the narrow gauge railroad to Valley Spring, Calaveras, is growing steadily. Lockeford, Woodbridge, Tracy, Farmington, and smaller settlements show progress. The other towns and precincts are: August, Athearn, Bantas, Brunswick, Burwood, Bellota, Calaveras, Davis, Douglas, Dry Creek, Delphi, Dutch Lake, Dunbar Lake, Dunbar, Elliott, Elkhorn, Enterprise, Everett, French Camp, Franklin, Fairchild, Fairview, Greenwood, Grant, Henderson, Harmony Grove, Houston, Home, Island, Jefferson, Justice, Lammersville, Liberty, Live Oak, Lincoln, Lone Tree, Lafayette, Linden, Moore, Madison, Montezuma, Mokelumne, Mount Carmel, McKamy, New Jerusalem, New Hope, North, Pacific, Rising Sun, Rustic, River, Ripon, South, Salem, Shady Grove, San Joaquin, Telegraph, Tulare, Turner, Union, Valley, Van Allen, Vineyard, Woods, Wheatland, Washington, Wildwood, Weber, Willow, and Zinc House.

The crop prospect for 1886 is flattering, and although subsequent dry weather may change the prospect, farmers feel confident of a prosperous season. The West Side, containing 52,000 acres of tillable land, promises exceptionally promising results. Altogether, San Joaquin County is in excellent condition for a money making and progressive year in 1886, and the business spirit and community feeling are those of a generally contented people.

SAN LUIS OBISPO.

San Luis Obispo County lies between the thirty-fifth and thirty-sixth parallels of latitude. It is bounded on the north by Monterey County, on the west by the ocean, on the south by Santa Barbara County, and on the east by the Mount Diablo Range, which separates it from the Tulare Valley.

While the County of San Luis Obispo has advanced materially during the past year, the progress has not equaled that of 1884. The depression in business throughout the United States has had its influence upon this section, limiting immigration, and retarding improvements. This is one of the southern coast counties, and although open to the sea for the cheap transportation of its products, it is far removed from the railroad system of the State, and in consequence its development is not commensurate with its resources. No county has more lived upon itself and prospered from the products of its own soil than San Luis Obispo. Agriculture and grazing, with a comparative small output from mines of gold, chrome, and asphaltum, are the sole resources of income, and from these the wealth of the county has been obtained. Stimulated by the inpouring of tourists to other counties, such as Los Angeles, Monterey, Santa Cruz, and San Bernardino, having railroad facilities, the hope has been entertained that this might be made a region of resort, so pleasant is its climate, and so attractive its scenery; and elegant hotels have been constructed for the entertainment of visitors. But being without railroad communication the effort has not been crowned with success. In the past year the Government has established here a signal service station, and the reports of the observer show a more equable and genial temperature, more days clear of clouds and fogs, and gentler winds, than any station on the Pacific Coast. Thus, from the official records, it is shown that here is the most lovely and desirable climate of California. The range of the thermometer from May 1 to December 1, 1885 (an average reading), has been during the day from 76 to 80 degrees, and during the night from 55 to 65 degrees Fahrenheit. On one day during the hot spell in September the mercury rose to 103 degrees, being the only day over 100. During the winter the range by day is seldom below 55 degrees, or by night below 35. Frosts are very rare in the coast region, but are usual during winter nights in the interior. Fruits of all kinds grow to perfection, including oranges, lemons, olives, figs, grapes, and others of semi-tropical varieties.

The county has a coast line of about 60 miles, and extends from 50 to 60 miles to the eastward. The Santa Lucia Range of mountains trending northwest and southeast, divide the county into two unequal sections of distinct characteristics, the coast region comprising about one third of the area, with a climate cooler in summer and warmer in winter than on the opposite side of the range. Four fifths of all the soil of the county is of a fertile character and arable, excepting upon precipitous hillsides. The chief settlements are on the coast side, the eastern portion being a vast waste or cattle range, mostly owned in large tracts, bought up on speculation, or is public land, there being comparatively few settlers. This feature, however, is changing with the incoming of settlers on public land,

and the offering for sale in farms of the large tracts. The Immigration Association report 1,000 filings on public lands in San Luis Obispo County the last year. There have been about 300 purchasers of private lands. It is usually estimated that each filing and purchaser indicates an addition of three to the population, but here it is known that often two and three of a family enter filings, some not making a permanent settlement, and, therefore, the addition to the population is not as great as estimated from these figures. The population by the census of 1880 was 9,142; at present it is estimated at 17,500. The assessed valuation of all property in 1880 was $5,156,880, and in 1884, $8,734,596. The total value in 1885 was $9,734,482. The increase is large and continuous, arising chiefly from the opening of new farms and consequent improvements. The tax rate is $1 50 on each $100. The assessment is from the following sources: Real estate, $5,610,994; improvements on same, $575,365; city and town lots, $496,353; improvements on same, $464,434; personal property, $2,333,083; money, $29,253; Pacific Coast Railway, $225,000; total, $9,734,482. Mortgages assessed in 1884, $1,013,000; in 1885, $1,260,329. Acres of land assessed, 1,024,948. There are about 2,100,000 acres of land in the county, and these figures indicate that about one half is public or railroad land.

The land granted to the Atlantic and Pacific Railroad, comprising the odd sections of a strip 20 miles in width and extending north and south across the county, has been declared forfeited, and thrown open to settlers, and every portion of the same has been filed upon, and the present year has seen a great increase in the actual settlers of the county. The Southern Pacific is pushing its road from Soledad toward San Luis Obispo, and probably, before the close of the present year, this county will take a big stride forward by reason of her increased railroad facilities.

The Pacific Coast Railway extends from Port Harford through the city of San Luis Obispo, and southeasterly a distance of 65 miles to Los Alamos, in Santa Barbara County. The chief improvements in the county, the past year, have been the completion of a large hotel in the City of San Luis Obispo, called the Andrews, and one at Port Harford, styled Hotel Marre; a large brick school-house in the city, several fine residences and stores, but not as many as in the preceding year. The manufacturing interests of the county are slight, the principal being a flouring mill, of the patent roller process, capable of turning out 100 barrels of flour daily. The chief branches of agriculture are dairying, stock raising, wheat growing, and fruit culture, the latter, however, not constituting a great resource at present, as the interest is in its infancy. Dairying is the leading industry, the product of butter being about 2,000,000 pounds the last year, and of cheese, about 1,000,000 pounds. The wheat crop is estimated at about 330,000 centals, mostly grown from the newly settled regions east of the mountains, and hauled to market in wagons, at a cost of about $8 per ton. Mining is carried on to some extent, the minerals being gold, chrome, and asphaltum. Gold is found over quite an extended range, but is not energetically mined of late years, the annual product being only from $500 to $2,000. About 350 tons of chromic iron ore was mined this year, which is sold at the railroad depot at $8 per ton, and shipped to the chemical works at Philadelphia. Asphaltum is mined quite extensively, the product being from 1,200 to 2,000 tons annually, chiefly shipped to San Francisco. Onyx, gypsum, quicksilver, copper, silicate, and lime exist, but are not extensively worked. Mineral springs abound, as at Paso Robles and elsewhere, which are regarded as of great medicinal value.

San Luis Harbor is situated 9 miles from the city, on the bay of the same name. Here are a substantial wharf and commodious warehouse.

The harbor is sufficiently large to afford anchorage for a numerous fleet• It is safe from most winds, but about a mile and a half further up the bay there is a small cove of great depth, protected by a semicircle of abrupt bluffs, which affords security for vessels of large size at all seasons of the year. This is known as Port Harford, from which point a railroad is built to San Luis. Steamers ply regularly between San Luis Bay and San Francisco. The coast line stage carrying the United States mail and Wells, Fargo & Co.'s Express, arrives in San Luis Obispo and departs daily, north and south. Consequently, the facilities for travel are ample. A daily stage between San Luis Obispo and Cambria, connects with Moro, Old Creek, and Cayucos. A line of telegraph from San Francisco, via San Luis Obispo south to Santa Barbara, affords the means of speedy communication with all parts of the Union. There is also a line from here to the port, and to San Simeon, with offices at Moro, Cayucos, and Cambria.

Among the objects of interest presented by the town of San Luis Obispo, the most prominent is the Old Mission, founded by the order of Franciscans, September 1, 1772.

Two newspapers are published in the town, the San Luis Obispo "Tribune" and the "Weekly Mirror," Doyle and Crenshaw, proprietors.

Moro is situated on the bay of the same name, 12 miles from San Luis Obispo. With a climate mild, genial, and invigorating, Moro presents peculiar attractions to excursionists seeking to enjoy gentle ocean breezes and aquatic sports. The town site is an excellent one, and the back country is sufficiently productive to support a large town. The next point on the coast, 6 miles above Moro, is Old Creek. One mile further on the landing, Cayucos. There is a good wharf at Cayucos. Considerable produce is shipped at this point from the back country. The Santa Rosa Valley, in which Cambria is situated, is one of the most picturesque and fertile in the country. It is about 12 miles long. The Santa Rosa Creek, flowing almost centrally through it to the ocean, is a live stream, and the lands on either side of which are generally moist, are well adapted to the culture of corn. Ten miles above Cambria is the village of San Simeon, located immediately on the bay of the same name. There is a company here engaged in whale fishing, which seems to be quite remunerative. San Miguel, a town somewhat older than our Republic, is situated in the northeastern part of the county, about 40 miles from the town of San Luis Obispo. It lies immediately on the south bank of the Salinas River, and is the center of a large stock-raising district. The old Mission stands as it was erected 100 years ago. The outer walls are considerably dilapidated. The town is small for its age, with a sparse population; but the surrounding country has quite a population hidden away among the foothills of the San Lucia Range. Avila is the name of a new town laid out by the Avila brothers, at the People's Landing, San Luis Obispo Bay, 1½ miles from Port Harford. The site is a very eligible one, and will, no doubt, grow to be a town of considerable importance. Arroyo Grande is a pleasantly situated little village, immediately on the west bank of the stream of the same name, and on the stage road leading from San Luis Obispo to Santa Barbara. To those in pursuit of rural pleasure, to the tourist, and, above all, to the invalid in quest of health, the mineral springs of San Luis Obispo County offer advantages exceeding those of any other places of natural resort in the State. Newsome's White Sulphur Springs is situated about 14 miles south of San Luis, near the village and stream Arroyo Grande. The Paso Robles Hot Springs are situated in a pleasant oak grove, 30 miles east of San Luis Obispo. At no season of the year is this popular resort without a greater or less number of guests; but in the summer it presents an unusual scene of activity. The coast line stages make daily connection between this point and Soledad, the southern terminus of the Southern Pacific Railroad from San Francisco. The Pecho Warm Springs are situated about 15 miles northwest of San Luis Obispo, and 2 miles from the coast, in a deep cañon, through which gracefully winds a stream abounding with mountain trout. Thousands of acres of the most productive lands in the county can be purchased on most liberal terms; and the year 1886 will be a great year for this county.

SAN MATEO.

This trig little political subdivision of the State, occupying, as it does, most of the peninsula which separates the ocean from San Francisco Bay, possesses a variety of soil, climate, productions, and commercial advantages enjoyed by few localities. It is bounded on the north by San Francisco, east by the bay and Santa Clara County, south by Santa Cruz County, and west by the Pacific Ocean. It is sometimes said to be only a "big mountain," the fact that the Gabilan, Sierra Moreno, of Santa Cruz Range runs the entire length of the county, giving rise to the expression. But the title is not deserved. While the mountains occupy a very important portion of the surface of the county, there is a large area of level or comparatively level land. On the eastern side, between the hills and the bay, there are the Burri Burri, San Mateo, Pulgas, and El Corte Madera Ranchos or grants, containing in the aggregate 69,000 acres, and of this broad area at least 40,000 acres are level or so gently rolling as to be easily cultivated through the use of all machinery employed on level lands. On the ocean side there are the Corral de Tierra, San Pedro, Miramontes, Canada Verdi, San Gregorio, Pescadero, Butano, and New Year Point Ranchos, containing a total of 73,000 acres, of which amount 17,000 acres are level land. Besides this there are several valleys of importance, especially the Canada Raymundo, Upper San Gregorio, Pomponia, and others, containing considerable areas of excellent land comparatively level. Of the mountainous sections a very large portion is tillable, much of the surface being gently rolling, and grain growing well even to the summit of the range. A careful estimate puts one half of the mountain surface under cultivation, including the foothill region.

The county is 5 miles wide at the northern boundary line, where it adjoins San Francisco, but rapidly widens southerly and attains a breadth of 18 miles at the middle. The length is 42 miles on a straight center line, and contains an area of 292,500 acres. The shore lines on both ocean and bay are exceedingly irregular, and following all their sinuosities are about 65 miles on the ocean and 35 on the bay, or 100 miles in all.

One of the principal advantages of the county is its

Water Supply and Streams,

Which are unsurpassed. As is well known, San Francisco draws her water supply from San Mateo territory, and the excellent facilities for water, of which the Spring Valley Company have availed themselves in the northern part, exist the entire length of the mountain range in the county. Springs of excellent quality and quantity abound everywhere. The streams are numerous, and most of them run with a liberal volume of the aqueous fluid throughout the year. On the ocean side the more important are Pillarcitos, Purissima, Lobitos, Tunitus, San Gregorio, Pomponia, Pescadero, Butano, Gazos, and New Year Creeks, all of which carry a considerable stream, even in the driest season, and in whose valleys are large quantities of the choicest farming lands. On the bay side, streams are less numerous, the San Mateo and San Francisquita being the only ones of much importance, although there are many small ones, the heads of which are well supplied with water.

The Climate

Is quite as varied and diversified as the surface. It has been truly said that in California one may find every variety of climate, from frigid to torrid, from Sahara dryness to perpetual humidity. This assertion is well illustrated in San Mateo County, except that the extremes are not so great as above expressed. The thermal condition of the atmosphere has a remarkable equability throughout the year, but there is much difference of climate in the different localities. In the northern portion it bears some resemblance to that of the adjoining county of San Francisco, fogs and cold winds prevailing to a considerable extent during the six months from April to October. From the neighborhood of Mt. San Bruno it grows milder, and the severity of the winds is rapidly diminished until, south of Belmont, they become mild, and refreshing breezes just sufficient to prevent the interior heat known over a large area of California, rendering the climate healthy, bracing, and delightful. On the ocean coast the thermometer ranges slightly lower than on the bay coast, but the climate is rather more equable, owing to oceanic influences and the fogs which prevail in summer. Here again, the climate is very healthy, as much so as on the eastern side of the mountains, while the fogs render agriculture a more certain and reliable pursuit than along the bay, because of the consequent moisture of the atmosphere. The mountain climate differs again from that of both sections mentioned. In the summer, dense fogs at times drench the summit in moisture nearly equal to a rain, and snow falls at intervals during most winters, but seldom remaining upon the ground more than a few hours. Yet the climate is not unpleasant, and as healthy as anywhere in the county. There is found a belt of territory along the sides of the mountains and midway up, that is milder than above or below, where frosts in winter and extreme heat in summer are more rare than at less or greater elevation, a fact that few persons have observed, and which is likely to be taken into consideration in the future by those selecting locations for country homes.

In speaking of the County of San Mateo, it is a habit to regard it as only a great and beautiful suburb of San Francisco, and this is what it really is; and as one rides along the eastern side and gazes from the windows of one of the cars of the Southern Pacific Railroad, it seems only a continuation of the residence portion of the metropolis. And verily it is a beautiful region, one of the fairest the world can produce, excelled by none and equaled by few, even in lands that live in song and that the world's poets have dedicated to love and beauty.

Bierstadt never painted a picture as beautiful as you can see any spring day in a journey along the fertile Valley of San Mateo; now gazing upon the shimmering waters of the bay, now refreshing the eye with the vivid green of her lawns and waving fields of grain, now riding through groves of majestic oaks that remind one of the old English parks, with gently rolling hills breaking the landscape with a varied beauty all their own, and all the while the magnificent background of the mountain chain of Santa Moreno running the entire length of the county, from the summits of which you can gaze upon the supreme majesty of the Pacific Ocean. And everywhere amid these mountains are nestled little valleys and fairy deltas and groves that are simply dreams of beauty.

And then not the least of the beauties of the county are the names of the towns and streams. If the eye is delighted with ravishing beauty, the ear is not offended with names with which other beautiful places in this State have been cursed, and around which no sentiment or romance can cluster. A rose by any other name may smell as sweet, but tell us that the most beautiful rose is called the Souvenir de Jackass Gulch, or Rose of Dead Man's Hollow, and the fragrance might be there, but we should leave them to rot on their stems, blighted by a name.

Her towns are baptized as San Mateo, Menlo Park, Ravenswood, Woodside, San Bruno, Crystal Springs, San Gregorio, La Honda, Pescadero, and Calma; and her living water streams, at which the deer slakes his thirst, and the trout flashes his brilliant beauty spots, are: San Francisquita, Pilarcitos, Purissima, Lobitos, Tunitas, San Gregorio, Pomponio, Pescadero, Butano, and the Gazos. All things being equal, we submit that we would rather pitch our tent in the Valley of San Gregorio than in the equally beautiful Hell's Delight, barring the name; and should enjoy the few fish caught in the waters of Purissima, rather than the many caught in Washerwoman's Creek as it went plunging through Devil's Cañon. But coming back to sober prose, San Mateo is a county of no mean agricultural resources. She has probably somewhere about 65,000 acres of land under cultivation, the principal crops being wheat, barley, and oats, although a good many potatoes are raised, particularly on the ocean side, but are rather liable to blight some years. But the great interest is dairying, there being some of the largest dairies in the State here, the shipments from some of them averaging about 250 cans daily to San Francisco. On the eastern side of the mountains, or on the San Francisco Bay side, it is more profitable to sell the milk, while on the ocean side a great amount of excellent butter is made, the prevailing fogs keeping the grass green until very late in the season, thus imparting that beautiful quality and color to the butter which nothing else will.

As to the county generally, the present year began auspiciously and promises to be a year of abundant prosperity. Along the entire length of the railroad improvements may be noted, and signs that denote a renewed activity in fine buildings for country residences.

The oil wells on the east side have created some excitement, and, no doubt, when more fully developed, will constitute a leading feature of this section of the State. During 1880 San Mateo County had a population of 6,635, while now its population, as near as can be estimated, is about 10,000. The assessed value of property during 1885 was $7,740,420. The last assessment showed an increase of over $3,000,000.

SANTA BARBARA.

The following description and topography of Santa Barbara is from "Santa Barbara As It Is," published in 1884:

> The County of Santa Barbara, roughly stated, is in shape a parallelogram, bordered on the south and west by the Pacific Ocean, on the north by San Luis Obispo County, and on the east by Ventura County. The southern side of the parallelogram, nearly 60 miles in length, begins at Point Concepcion, where the coast suddenly trends to the eastward and ends at Point Rincon, where it again assumes a southerly course. An extra depression in the coast line, just where Santa Barbara is situated, curves in so deeply that the frontage of the city itself has decidedly a southeastern aspect, its streets thereby running diagonally across from the cardinal points of the compass from northeast to southwest.
>
> From Point Concepcion to the northern edge of the county is a distance of about 35

miles, as the crow flies; but on this western border of our parallelogram Point Arguello, Point Purissima, and Point Sal reach out into the Pacific, more or less bodly.

A large portion of Santa Barbara County is covered with mountain ranges. Parallel with the southern shore and the Santa Barbara Channel, with its outlying islands, rise the rugged heights of Santa Ynez. These traverse the county from west to east, a solid range from 3,000 to 4,000 feet high. Beyond the Santa Ynez, the San Rafael Range lies, running in a northwesterly direction, almost at right angles. Beyond these again, to the northeast, the irregular peaks of the Coast Range combine to form a wild melange of mountains, only broken by the valleys of the Cuyama. The greater part of this northeastern quarter is set down upon official maps as unsurveyed Government land. Yet among these inaccessible heights are many narrow valleys, cañons, and canadas, watered by mountain springs, pleasant and fertile; occupied by adventurous settlers and traversed by intrepid hunters, or the still more intrepid prospector, in search of mineral wealth.

Between the Santa Ynez and the sea lies the unparalleled Valley of Santa Barbara. It is about 45 miles in length, averaging, perhaps, 3 miles in width; it contains a matter of some 86,400 acres of land. It is this belt which has become noted the world over for its semi-tropical climate and phenomenal fertility.

The Valley of Santa Barbara proper, extending from the Rincon to Point Concepcion, comprises the valley of the Carpenteria, from the Rincon to a small spur of the Santa Ynez called Ortego Hill, a distance of about 9 miles; the Montecito, from Ortego Hill to the city limits, some 6 miles; the City of Santa Barbara itself, occupying a space of fully 2 miles square and still reaching out on all sides; and 8 miles beyond, the village of Goleta. Beyond Goleta, still following the broad avenue, the great ranchos of Hollister and Cooper, Los Dos Pueblos, Nuestra Señora del Refugio, and other ranchos, brings the traveler to the Gaviota Pass, and a few miles beyond the Pass, Point Concepcion. Here the Santa Ynez Range runs bodily into the Pacific Ocean, and the Valley of Santa Barbara comes to an abrupt termination.

Beyond the Santa Ynez Range, beginning near the eastern edge of the county, slowly opens between the Santa Ynez and San Rafael Ranges, the lovely valley of the Santa Ynez. The Santa Ynez River, running almost due west from its mountain source, parallel with the islands, the channel, Santa Barbara Valley, and the Santa Ynez Mountains, waters a wide extent of agricultural lands, and near its mouth runs through the broad Valley of Lompoc, emptying at last into the Pacific, between Point Concepcion and Point Purissima. The towns of Lompoc and Santa Ynez are contained in this valley.

The next valley, Los Alamos, is watered by an arroyo of the same name, which rises in the San Rafael Mountains and empties into the Pacific between Point Purissima and Point Sal, though sometimes sinking into the ground and becoming invisible. Los Alamos is a long, narrow valley, scarcely more than 2 miles wide in its broadest part, and contains but one town, that of Los Alamos.

The great Santa Maria Valley lies upon the northern limits of the county. It is said to contain at least 65,000 acres of tillable land. This is certainly underestimated. The Santa Maria River, forming the northern boundary line of the county, is a continuation of the Cuyama which waters the valleys of Cuyama in the northeast, the only open portion of the piled up mountain ranges of that quarter. The Valley of Santa Maria proper contains the towns of Santa Maria, formerly called Central City, and Guadalupe, near the mouth of the river.

Three of the channel islands belong to Santa Barbara County. San Miguel, the most western of the group, is about 2½ miles in width, and 7½ in length. Santa Rosa contains 53,000 acres and rises to a height of 1,172 feet. Santa Cruz, lying almost opposite the city of Santa Barbara, at a distance of 25 miles, contains 52,760 acres, and attains a height of 1,700 feet.

The area of Santa Barbara is given as 2,200 square miles, divided by Professor Hilgard, as follows: Coast Range mountains, 1,900 square miles; valleys, 300 square miles. In 1884 the population was estimated to be not far from 13,000, and if this was correct, it is safe to add at least 2,000, for there has been a considerable immigration since that time, and, therefore, we have 15,000 inhabitants for this county, which is probably not far from the correct number.

As regards the climate of Santa Barbara, it may be said generally that it is well nigh perfect, particularly the climate of the City of Santa Barbara, which has made all kinds of people from all quarters of the globe enthusiastic in its praise, and many have exhausted panegyric in the attempt to do it justice. It has become a great resort for invalids, who flock here from all portions of the country to receive the benefit of its mild and equable temperature.

The writer from whom we have quoted, says:

The means of access to Santa Barbara are as yet limited to the approach by the sea. The steamers of the Pacific Coast Steamship Company, Goodall, Perkins & Co., agents, San Francisco, make regular trips—through steamers alternating with others that touch at several way ports. The through steamers, which touch only at Port Harford before reaching Santa Barbara, are the new and magnificent Santa Rosa, which has just been placed on the route, and the old favorite Orizaba. They sail alternately every five days from San Francisco, making the trip in about thirty hours. The Eureka and the Los Angeles sail alternately with the others, making a service of about fourteen steamers every month. But these latter boats carry freight mainly, to and from Santa Barbara, as they call at several ports each way, making the voyage somewhat longer for passengers. Freight steamers call at Carpenteria and Goleta, when sufficient freight is offered, as in the harvest season. The fare from San Francisco to Santa Barbara, and vice versa, is $10 in the cabin and $7 50 in the steerage. The steamers are all made as comfortable as possible, with experienced officers and obliging attendants. Besides the regular service, freight steamers, carrying combustibles, etc., sail every week for southern ports.

For those who dislike a voyage by sea, several alternatives are offered. A daily stage to Newhall, via Ventura, carries the mail and connects with the Southern Pacific Railroad, for San Francisco, or for Los Angeles, and from thence to Arizona and East. There is also a daily accommodation stage to Ventura, a distance of 30 miles. To Newhall from Santa Barbara is about 85 miles. Many travelers going East prefer to take the steamer to Los Angeles, and from thence begin their long journey across the continent, by one of the southern transcontinental roads. This is a particularly pleasant trip in the proper season, as it passes through some of the finest scenery in Southern California. The cars from Los Alamos also extend to the wharf at Port Harford, connecting with steamers up and down the coast.

The county is well supplied with wharves to facilitate communication by sea. Besides those on Santa Cruz and Santa Rosa Islands, there is a wharf at Point Sal, the shipping point for Guadalupe and the Santa Maria Valley; the Schute Landing on the Casmalia Rancho; one on the Jesus Maria Rancho and one at Purissima; one at La Espada and another at Gaviota, for the Santa Ynez Valley, San Julian, etc.; at More's Landing for La Patera and vicinity; Stearns' Wharf at Santa Barbara and Smith's Wharf at Carpenteria. All the landings below Point Concepcion are available in any weather, for although the so called harbor is little more than an open roadstead, the islands protect it from the violence of heavy storms.

The products of Santa Barbara are as varied as the soils and climate, and embrace all of the cereals, citrus and deciduous fruits, lima beans, olive oil, honey, etc.

The last report that we have at hand gives the amount under cultivation as 95,350 acres, with 58,720 acres to wheat, 29,460 acres to barley, 67 acres to oats, 1,680 acres to corn, and 30,184 acres to beans. She produced something less than 200,000 pounds of butter, and 694,800 pounds of wool.

At an early date in her history Santa Barbara was one vast pasture land for immense bands of sheep and cattle, and the live stock interest was paramount; but that time has passed, giving place to thousands of farms, vineyards, and orchards.

It is not as yet a great vine producing county, although a good deal of progress has been made in that direction, some 150,000 vines having been planted within the last year; but a great deal of attention has been paid to nuts, and to the cultivation of the olive, which promises to be eminently successful. Almonds have not justified expectations; but the English walnut flourishes most luxuriantly, and beans most plentifully. At one time it was thought the orange would not be a profitable crop, and in the rich lands of the valleys it was not a success; but later experiments have shown that far up on the foothills, back of Santa Barbara, is a light colored soil of loam, mold, and sand, not tenacious and hard, but what is usually termed a "kind" soil, which is the true home of the orange, and which produces fruit of a superior quality. All the fruits do well in the county. The honey interest is also a large one.

The City of Santa Barbara is the county seat, and contains about 6,000 inhabitants, and is a rarely beautiful city, with schools of the first order, capacious hotels, hardly second to those of San Francisco, and certainly the finest south of here; churches representing the different denominations, street cars, fine livery stables, two flourishing newspapers—the "Independent" and "Press"—flourishing societies of all the orders, and a fine public library of over 4,000 volumes. One writer says that the city is literally ever blooming; and to illustrate the capabilities of the soil, and mildness of the climate, and to give point of his assertion, says:

Her gardens contain an immense variety of the flowers of every clime. One garden, that of Dr. Dimmick, on De La Vina Street, has growing in the open air throughout the year, in addition to the more common plants, the following: Thirteen varieties of the palm, natives of India, China, Australia, South America, and Africa; 75 choicest varieties of roses; 10 of vignonias; 42 of ferns, one a large tree fern from Australia; 30 of cactus, including the night blooming cereus, 13 of the aloe family from Africa; 4 kinds of crinums, one having a bulb 28 inches in circumference; 2 of pancratiums, with their curious cups; 4 of the stapelias, from the Cape of Good Hope; 4 tropical jasmines, the cedar of Lebanon, the Egyptian paper plant, the honey tree of South Africa, the camphor tree of Japan, the Queensland lily, and the magnificent bird-of-paradise flower. It is impossible within the limits of this article even to outline the treasures of a Santa Barbara garden. Almost anything will grow, and with a prodigal luxuriance which astonishes the newcomer, who has only seen our common plants pining in eastern greenhouses.

Guadalupe, 70 miles northwest of Santa Barbara, is a growing town, situated in the broad and fertile valley of the Santa Monica, a few miles from where the stream enters the ocean. The Valley of Santa Monica is one of the most lovely settlements in the State. A wharf has been constructed, and Guadalupe is looking forward to connection by a narrow gauge line with San Luis Obispo. Population, 200.

Lompoc, 40 miles northwest of Santa Barbara, is what is known as a "colony town." The Lompoc Rancho of 46,500 acres was divided into tracts of from 5 to 80 acres, and sold on favorable terms in the latter part of 1874. The town started into existence immediately, and has grown ever since. Lompoc is situated on the Santa Ynez and Miguelita Creeks, a short distance inland from Point Concepcion. The colony was established with a pledge to exclude all intoxicating drinks. The colony contains about 1,500 people, there being about 400 in the town. There are six good schools, a steam flouring mill, a weekly paper, and city waterworks. Like all the southern part of the country, it is much sought after by invalids.

The other towns and precincts are: Agricola, Alma, Cathedral Oaks, Carpenteria, Grangeville, Hope, Laguna, La Gaviota, La Graciosa, La Patria, Las Alamas, Las Cruces, Montecito, Ocean Pine Grove, Pleasant Valley, Rafaela, Rincon, Santa Maria, and Santa Ynez.

The assessed value of the county for 1884 was $8,748,084, while for 1885 it was $9,637,883, an increase of $890,799. The county is steadily increasing, and the present year she will share in the general prosperity.

SANTA CLARA.

Santa Clara, one of the most prominent agricultural counties in the State, is bounded on the north by Alameda, on the south by San Benito, on the east by Stanislaus and Merced, and on the west by San Mateo and Santa Cruz. A well defined valley runs through it, formed by the Coast Range proper and Monte Diablo chain. Mount Bache is the highest point on the west, whilst Mount Day, Mount Hamilton (4,009 feet), and Blue Ridge and Pacheco Peak tower up on the west. This valley has been called "the garden spot of California," and is worthy the name. It is a lovely plain, fertile throughout, tempered from the winds by the hills and freshened by the sea fogs. The mountains that lie between it and the neighboring Valley of Santa Cruz are magnificently wooded, yielding millions of feet of lumber every year. Cereals and fruit of all kinds, especially strawberries, grow in this county most luxuriantly, two crops a year of the last mentioned fruit being the general average. The elevated land and the slopes on the foothills seem the natural home of the vine, and the higher valleys are all settled by herders and grazing farmers. Several creeks run down the mountains into the valley, where numerous artesian wells complete an almost perfect system of natural and artificial irrigation. The Southern Pacific line runs through the whole length of the county, following the valley, and a branch of the Central Pacific Railroad on the east side of the bay connects at San José; the South Pacific Coast Railroad also runs through the center of the county to Santa Cruz.

San José, the county seat, is one of, if not the prettiest town in the State. The choice lies between this place, Santa Rosa, and Oakland. To establish its claim, San José has almost a perfect climate, rich soil, a generous growth of trees on every street, gardens stocked with flowers around every house, and means of easy communication with the metropolis. Besides the three lines of railroad already spoken of, all of which pass through San José, the city has water communication with San Francisco via Alviso, 8 miles distant. San José was first a pueblo attached to the Mission of Santa Clara, the date of its attachment going so far back as 1792. When California was annexed to the United States, San José was a prosperous town. It continues to be so still. The city is laid out in broad, well paved, well lighted streets, the drives in and around it being particularly admired by all who visit the place. The Alameda to Santa Clara, with its avenue of splendid willows, the Santa Clara Avenue, the Alviso turnpike, and the San José Mission roads, are amongst the principal of these. Two small creeks, the Guadalupe and Coyote, inclose the town, which has a sufficient elevation to secure good drainage. The view from the Court House observatory is almost as fine as that from the dome over the Capitol at Sacramento. The great Santa Clara Valley is seen stretching 18 miles away to the south, the bay glistens to the north, and blue mountains close in the view on either side. At your feet lies the city, a picture of life, comfort, and prosperity.

It is not only a fair and very beautiful city, but one of the busiest and wide awake cities in California.

It has all the essentials of prosperity, and her business men have sufficient breadth of perception to appreciate her natural advantages, and energy and push to turn them to the best account. They always carry about with them an air of profound satisfaction with their lot, and manifest on every occasion a supreme confidence in their city and its future, and the natural product of all this is a city on substantial basis with an assured future, and leavened through and through with that great boon to cities, public spirit, which means broadly a thinking and acting concern for the general welfare as well as for self.

The county has enjoyed a large prosperity, and the City of San José has been made partaker, and shared in the general success. As tending to show the wealth and resources of the county, we give the shipments from San José to points east of the Missouri River, via the Central and Southern Pacific Railroads, from June 1 to December 1, 1885, most of which was handled by her merchants: Canned fruit, 3,961,450 pounds; leather, 175,170 pounds; mustard seed, 113,590 pounds; garden seed, 115,680 pounds; wine, 76,010 pounds; dried fruit, 1,014,260 pounds; wool, 96,720 pounds; almonds, 50,840 pounds; green fruit, 3,746,760 pounds; miscellaneous, 295,950 pounds. Total, 9,646,430 pounds. The 3,746,760 pounds of green fruit constituted 165 carloads, and was distributed as follows: New Orleans, 4; Chicago, 120; Denver, 23; New York, 1; St. Louis, 9; St. Paul, 3; Minneapolis, 1; Kansas City, 2; Cincinnati, 1; Louisville, 1. Of the large quantities of merchandise and fruit shipped to San Francisco and points on the Pacific Coast, no reliable figures are available.

During the last 12 months new buildings have been erected in the City of San José, the aggregate value of which is over $1,000,000, while the cost of those erected elsewhere in the county will reach about the same figures. The population of the city is not far from 18,000 and rapidly increasing.

The city is lighted by electricity from one tower 218 feet high, 9 masts 150 feet high, and 10 cranes, each of which is 40 feet high. It has a free public library, and besides the State Normal School it has four large public schools. It has also the University of the Pacific, the Academy of Notre Dame, and many more institutions of learning. San José's evenness of climate and freeness from fogs make it a favorite place for invalids and tourists. It has three banks, three woolen mills, four foundries, two flouring mills, three fruit packing establishments, and several large breweries. Four daily, six weekly, and two monthly newspapers are published in San José, and five street car lines traverse its streets. It is the terminus of the Western Pacific Railroad, and is the largest station along the routes of the Southern Pacific and of the South Pacific Coast Railroads.

The second largest city in Santa Clara County is Gilroy, 30 miles south of San José, with a population of 3,000. Gilroy relies for its support greatly upon its large trade in dairy produce and in its agricultural surroundings. It supports two weekly papers. This city has especial reason to be glad over the final partition of the Las Animas Rancho. As is generally known, this grant, comprising some 21,000 acres and including the town of Gilroy, was formerly held by about 500 tenants in common, and the consequent uncertainty of bounds and measures, prevented all permanent improvements. Some of the best land is in this district, and the southern end of the county is already feeling the advantages of the new condition of affairs.

Santa Clara, which is situated 3 miles west of San José and is connected with that city by two street car lines and two steam railroads, has over 3,000 inhabitants, and harbors the famous Santa Clara College and the Convent of our Ladies of Angels. It has seven large tanneries and mills, and is greatly liked by wealthy families as a place of residence, on account of its seclusion and healthfulness. One weekly newspaper is published in Santa Clara. A home for feeble-minded children has been built at a cost of $23,000. The South Pacific Coast Railroad has built a handsome new depot, and many elegant private dwellings have been erected.

Mayfield, 35 miles south of San Francisco, has about 650 inhabitants, who, aside from the usual occupations, are generally depending upon the products of the soil they till. The same may be said of Mountain View, which has a population of 320. Los Gatos, a pretty little town, which, for enterprise, cannot be surpassed, is 10 miles west of San José and has about 1,000 inhabitants. Its industries, among which is a fruit packing establishment, a large flouring mill, etc., are in a flourishing condition, and three weekly newspapers do a fair business. In this county is also located the town of Milpitas, near which the county almshouse is to be found. Alviso, Lexington, Saratoga, San Felipe, Alma, Wright's, and New Almaden are other towns of smaller size. Near the last named are situated the famous New Almaden quicksilver mines, which are a source of wealth to their owners. Near the mines is a freestone quarry, which supplies the foundations for many large buildings throughout the county. All the land of the valley is fertile, and the foothills are remarkably well adapted to grapes and fruits.

The total assessed value of property in the county for 1885 was $35,174,402. To sum up, it may be said that the people of the valley generally are not well satisfied with the record of 1885. The indications are all that could be desired for 1886, and farmers, orchardists, and vineyardists will all plant much more largely than they have done for several years.

SANTA CRUZ.

Santa Cruz is bounded on the north by San Mateo and Santa Clara Counties; on the east by Santa Clara County, on the south by Monterey County and the Bay of Monterey, and on the west by the Pacific Ocean.

Its area is 420 square miles. In "Agricultural Features of California" we find the following description:

Santa Cruz is one of the most mountainous counties on the southern coast; the ranges, however, being neither high nor much broken. The eastern boundary line rests upon the summit of the Santa Cruz branch of the Coast Range at an elevation of 2,000 feet or more above the sea, extending south to the Pajaro River, while to the west, and separated by the San Lorenzo Valley, is another mountain range reaching southward to the Bay of Monterey, at Santa Cruz. Still westward to the coast the country is hilly and broken, often to the water's edge. In the southern part of the county, the Pajaro River forms the boundary line, and is bordered by a valley region extending east and west and embracing rich dark loam and adobe lands, which are well adapted to wheat and barley. This part of the valley, however, is not wide, as the river flows not far from the hills, thus giving the greater part to Monterey County. Northwestward from this there is another valley region lying east of the town of Santa Cruz, and at the mouth of the San Lorenzo River. It embraces several terraces or benches, which are from a mile to two miles wide and extend through the valley, the first 30 feet above the level of high water, the second 34 feet higher, and the third 199 feet higher still, showing a total rise of 263 feet. The town of Santa Cruz is located upon the lowest of these benches, extending southward by Soquel and Aptos to the Salinas marshes. It has been estimated that the bottom lands of the county embrace 40,000 and the terraced plateaus 50,000 acres.

The county is watered by the San Lorenzo and Pajaro Rivers, and numerous small streams that flow from the coast mountains to the sea. The mountains are generally heavily timbered almost to their base with redwood, pine, and chestnut oak, probably to the extent of one third of the county area, while the lower hills are covered to some extent by hazel bushes. The redwood trees of this county are noted for their great size, many of them attaining a height of from 200 to 300 feet and a diameter of 15 feet. The lands of the San Lorenzo Valley north of Santa Cruz have a sandy loam soil, derived from a fine grained calcareous sandstone, the prevailing rock of the hills, although granite occurs northward of the town of Santa Cruz. The soil is deep in the flats, but easily washes away, and on the hills much rock is exposed. This valley is about 20 miles long, and is most generally used for pasturage, though there are a number of vineyards near Vine Hill, about 10 miles north of Santa Cruz. The valley is very narrow, the river often flowing between high hills, while in other places it opens out into wide plateaus; but the hills on either side are sufficiently low for cultivation, and the Santa Cruz Mountains generally are being rapidly occupied for orchards and vineyards. The average of lands under cultivation is 95.7 acres per square mile, and the crops embrace wheat, barley, corn, potatoes, and fruits of several kinds; lumbering is also one of the chief industries.

Santa Cruz is one of the smallest counties in the State, and while not classed as a great agricultural county, is yet no mean producer even of the cereals, and in the line of grapes and fruits bids fair to take fine rank. It is true that she has no great extensive plains like Butte, Sacramento, San Joaquin, Tulare, and other counties, but she has, as appears above, some 40,000 acres of rich bottom lands, and 50,000 acres of terraced plateaus that are admirably calculated to produce grapes and fruits of all kinds.

Instead of being a larger domain of vast estates, where thousands of acres are scratched in trusting to Providence for favorable results, Santa Cruz will be a county of small holdings, thoroughly and intelligently cultivated, and in the very nature of things, will enjoy a greater degree of prosperity and success than some of the great counties that lie "all outdoors," to be pelted by sweeping storms and blighted and scorched by blistering suns and blasting winds. Taking everything into consideration, we know of no county that offers more attractions for the man in search of a beautiful as well as profitable home. There are plenty of places in the Santa Cruz Mountains, easily accessible, that would be a perpetual joy to one seeking for health, rest, lovely scenery, sometimes approaching the grand, mild and equable climate, rich soil, with unlimited capacity for production, trees of nature's own planting, sparkling streams of living gladness, and all for prices not beyond the reach—very moderate competence. Were it not that California is so blessed with a myriad of beauties and varied attractions, the farm of Santa Cruz would be world wide in its beauty of situation and manifold attractions. During the last year a good deal of orchard and vine planting has been done, amounting probably to not less than 500 acres.

Santa Cruz Mountains will make a wine equal, if not superior, to any locality in California. All the small wine grapes do well here and ripen and color splendidly, not giving so much spirit as the interior ones do, where there is so much more heat—and heat produces sugar, and sugar alcohol. The even temperature of Santa Cruz is especially adapted for finer clarets and Burgundy, where too much spirit is not desirable. For a fine light wine or claret, the County of Santa Cruz is all that can be desired; it is also well adapted for sherries. The Gray Riesling or Gray Penau, or as we usually call it, the "Gray Dishia," makes a fine sherry, and the brandy made from this grape more nearly approaches to a genuine French brandy than any that has been made in California. The fine soil, resting on chalk formation, with a warm—not hot, but even—temperature, seems to give much more flavor and aroma to the wine and brandy than interior localities. A small place in the mountains, say 10 or 20 acres, "cultivated well," and set out with Verdal, could be made to yield uniformly 10 tons per acre on rich land. They would bring $40 per ton, on an average, year after year, over expenses of freight, etc. The redwoods stands close by and can be made readily and cheaply into grape boxes, and the broad gauge is now running into Santa Cruz—so that cars can be loaded for Chicago, Boston, or New York, and go over the Central or by the Southern route, to Galveston, New Orleans, and southern cities.

There are 215,000 acres of mountainous land producing fabulous growths of redwood, oak, fir, and the finest quality of all varieties of grapes. Through this mountainous region runs a thermal belt, within which frost is seldom seen, even in the coldest seasons. As a consequence of the mild climate within the limit mentioned, strawberries bloom and ripen in large quantities in the open air at all seasons of the year; orange trees wear a perpetual livery of golden fruit and blossoms, and the delicate almond dons its fragrant dress of blossoms in February, when other sections of the country are hibernating, waiting for spring.

But great as little Santa Cruz County is in her actual and possible agricultural products, she has other resources that bring her in a large revenue, and she is noted for her manufactories.

Next in importance to the lumber industry is the manufacture of lime, Santa Cruz lime being superior in quality to any other on the Pacific Coast, and not excelled in the markets of the world, and the county is the great source of supply for San Francisco.

From no other portion of the State is there as much lime manufactured and shipped as there is from Santa Cruz, and although it is almost impossible to get at the exact amount of the shipment, it probably reaches to not far from half a million barrels annually. The leather interest in the county is also one of great importance, there being seven large tanneries in operation turning out leather of the very best quality.

The California Powder Works have about half a million dollars invested in the manufacture of the various grades of powder. putting on the market between three and four million pounds annually, competing successfully with the best of eastern brands.

There is a large chair factory at Soquel and a paper mill turning out some three tons per day of superior straw paper. Besides these there are foundries, extensive machine shops, fruit canning establishments, etc., in the City of Santa Cruz.

The City of Santa Cruz, the county seat, is situated close to the thirty-seventh parallel of the north latitude, looking out on the Bay of Monterey and the Pacific Ocean. It is built on both sides of the San Lorenzo River, and on the semicircular bluff that surrounds the river bottom. It contains a population of about 6,000. It contains a full complement of public buildings, churches, and schools, a handsome Court House, and many fine stores, and numerous fine hotels. Situated as it is, nestled at the foot of the mountains, and favored by the breezes from off the ocean, her location is at once not only picturesque, but healthful. Her beauties and advantages have been heralded far and wide by journalists. Grace Greenwood (Mrs. Lippincott, of Washington), who visited California some years ago, thus wrote of Santa Cruz to the New York "Tribune:" "Santa Cruz is a beautiful, smiling town, seated on the knees of pleasant terraces with her feet in the sea."

The cool "trade winds" pass Santa Cruz a little to the westward. The timber-covered mountains, on the northerly side, break and temper these winds; while the strong air current, passing a mile or two outside, produces an eddy, near the center of which, during a great part of the time, stands the City of Santa Cruz. These circling currents are always mild, warmed by the land and sun, and they are highly favorable to vegetation.

The Society

Here is of the best, which is not a matter of much surprise when we consider that it is one of the most favored watering places on the coast. Here, in the summer months, the first and leading people of San Francisco spend their vacation. Here the weary and worn out students from colleges and academies come to allow their minds to rest from study and recreate the body for a short period, go back to their toils and studies refreshed, regenerated, and ready for another year's hard study. Here the Judge comes, laying aside his ermine, and forgetting the law, becomes a lively participant in the joys and pleasures of the summer vacation. In fact, every one who can afford it, sooner or later, makes Santa Cruz his objective point.

There are in the town eight organized churches, an excellent school system, with ornamental structures, creditable to the taste and public spirit of the citizens; all the fraternal and benevolent organizations, first class hotels, and all the adjuncts and accessories of a first class watering place. The season of 1885 was one of the most prosperous summer seasons that Santa Cruz has ever experienced; and the season of 1886 will be in advance of last, showing that this famous watering place is rapidly growing in popularity. During the season thousands of visitors flock to this city, and the hotels and boarding houses are filled to repletion.

Santa Cruz is not only a beautiful city in itself, but its surroundings are of a most unique and delightful character; and no city can present more attractive drives and resorts than Santa Cruz. Five miles and a half from the city, over one of the most grandly picturesque drives in the world, is

The Big Tree Grove.

Nature, in all its grandeur and loveliness, is displayed here. Immense redwoods, the fragrant bay and laurel, the madrone and manzanita, oaks, pines, maples, sycamores, and other trees; ferns in every variety, azaleas, wild flowers, mosses, etc. In the grove there are eighty-five big trees, with a hundred or two of lower grades. The "San Lorenzo Giant," the big fellow who wears a great corset of cards, that have been from time to time tacked on him by visitors, is now 286 feet high, with a claim of 70 feet more of a topknot, blown off in a storm years ago. He is 62 feet in circumference, measured 2 feet from the ground; is 20 feet 8 inches in diameter, and the small boys have a straight shin of 109 feet to his first limb. The hollow or "House-tree," as it is called, is 285 feet high, 49 feet in circumference, and by an accidental fire was burned hollow in the very early days. The cavity makes a room 16 feet by 20, and 30 high, and closely packed will hold 50 people. This tree is known to have been inhabited as early as 1835; and in the year 1846 Fremont, while on his way from San José to Santa Cruz and Monterey, occupied it with his 25 men. In another part of the grove are shown the remains of the first tannery in California. In 1846 Isaac Graham and William Vane felled one of the largest trees, and cut in the immense trunk four large vats for tanning leather of various kinds. Another attraction is the stump of a fallen giant, that must have been 40 feet in diameter; and in the main grove are burned out trees that have a history and an interest. At this grove, or station, there is a hotel; and the place is fitted up with all the conveniences of a pleasure ground. All about the great grove is pretty, too. At one side flows along the San Lorenzo, and across it a rustic foot bridge leads to points commanding beautiful views up and down the stream.

The South Pacific Coast Railroad has a station at the grove.

Moore's Beach,

Or the Natural Aquarium, as it is often called, includes, first, a natural bridge with three arches; then a sand beach, and lastly, a rock shelving beach, with numerous tide pools, noted for their fauna and flora. Here at low tide may be found anemones, star fish, and a countless variety of marine growths, both vegetable and animal. It is a favorite place for picnics.

The Natural Bridge.

This natural curiosity is a span over the mouth of an indentation of the coast made by the tides, and is well worth seeing. The surf flows under the arch, and at high tide, a short distance up the gulch, washes up beautiful pebbles and shells. The rocks under the arch are covered with limpets, barnacles, snails, and many other curious things. The beaches on either side of this bridge are full of interest to those who spend an hour or two in walking the sands or climbing the rocks. The width of the bridge is sufficient for several teams to drive abreast.

Parson's Beach

Consists, at low tide, of easily accessible shelving rocks, extending far into the water. There are many crevices and tide pools filled with a great variety of plants and animals peculiar to this coast. Two miles up the coast from the Natural Bridge, and 6 miles from Santa Cruz, is

Eagle Glen.

This is one of the most romantic cañons along the sea girt shores of the county. The Santa Cruz Water Company draw their supply from Majors Creek, which runs through this cañon, and they have a covered flume which extends 2 miles up this grandly picturesque glen. There are rocks and falls, gigantic trees, and towering cliffs, which combine to produce a scene of wild grandeur rarely to be found. Outcroppings of petroleum sandrock are found in places along this cañon, and there are many specimens of rare and grotesque vegetable growths. Seven miles up the coast from Santa Cruz is

Laguna Creek.

One of the most famous trout streams of this region. Near where it empties into the ocean is to be found a grove of large trees, and a good camping and picnic site. A ramble up the stream reveals many lovely sylvan scenes, and along its course are several beautiful cascades. Two miles beyond Laguna Creek is

Pebbly Beach.

A small nook or indentation in the coast line, famous for the great variety of curious and interesting pebbles of various forms of silica. A path leads to it from the highway a short distance across the fields.

San Vicente Creek,

Twelve miles up the coast, is a stream of considerable size. Near the mouth of this creek, one fourth of a mile from the shore, lies a flat island of rock, an acre or so in area. This once was a great resort for seals, whose roaring could be heard for miles at certain seasons. Castle Rock also stands near this beach, bare to the base at low tide. Passing Davenport's Landing, a little cove, once an important shipping point, a ride of 4 or 5 miles brings one to

Scott's Creek.

A stream deeply shaded by large forests of pine, redwood, nutmeg, etc., and the wildest mountains. This is a great resort for hunters and fishers; deer, grizzly bears, and California lions are occasionally found. Trout and salmon in season are abundant. There is hardly a prettier camping ground in the State. About 5 miles from the coast there is a waterfall on this stream nearly 100 feet in height. Although a considerable walk is necessary to reach it, the sight is one to well repay the trouble and fatigue.

Pescadero.

A long drive along the coast will bring the tourist to Pescadero, a town of 1,500 inhabitants in San Mateo County, noted for its pebbly beach where gems of real value are often found. It is connected with Santa Cruz by a stage line which makes trips on alternate days.

Soquel.

Situated about 4 miles from Santa Cruz, and located in the valley of Soquel Creek, is the village of Soquel, and which ranks third in size in the county. Like Felton, it boasts of its manufacturing industries and lumber business. Here is located the only chair factory in the State. There are quite a number of business houses, hotels, shops, etc. There is a good church. A paper mill is run the year round, and a large amount of paper is manufactured daily and shipped to San Francisco.

Loma Prieta

Is one of the third grade of mountains among the sentinels of the Pacific. It is in the form of a truncated cone. Its height is given as 3,780 feet, and it is situated about the center of the Santa Cruz Mountains. Its dark form is seen from a long distance. The ridge on which it is situated is the dividing watershed of this range. Its top is covered with brush, and its sides bristle with tall redwoods. From its summit what a grand and magnificent view is presented to the eye of the admirer of the beautiful and sublime in nature! Standing on this elevation the eye takes in at one glance the Bay of Monterey and the Gabilan Range beyond, and sweeps along the coast line on the north side of the bay, and looking north and east, the great Valley of Santa Clara, the Bay of San Francisco, and Mount Diablo Range are spread out in one grand panoramic view, and this magnificent spectacle presented itself to the view of the Jesuit Fathers a century ago, and they were charmed and enraptured at the sight. Father Junipero Serra, standing on an elevation overlooking the Bay of San Francisco, supposing it to be a continuous body of water beyond, exclaimed: "I now thank my God that mine eyes have been spared to see the end of this goodly land." This elevation is above the thermal belt, and at a greater altitude than redwood will grow. The timber here is principally pine and oak, and the sandstone formation predominates.

Next in size and population to the county seat is the town of Watsonville. Although younger in years, it is a lively rival to its sister on the bay. It is situated in one of the richest agricultural regions of the State, contains in the neighborhood of 2,500 inhabitants, and is incorporated. The place was laid out in 1852 by Judge J. H. Watson and D. G. Gregory, and was named after the first of these gentlemen. Two years after the town site was laid out a Post Office was established. The progress of the town was sadly impeded by troubles connected with the title to the town site, and for many years the property stood in litigation. The difficulty was finally settled, and since that time the town has improved in every respect.

Many new and fine buildings grace the town, and everything has a healthy aspect. There is no debt on the place, and the finances are so managed as to keep out of debt. A large and fine two-story building, which is used as a town hall and engine house, is the property of the corporation. The town is 100 miles from San Francisco. There is a water company, by which water is furnished both for domestic and fire purposes. The water furnished by the Corralitos Water Company is obtained from the Corralitos Creek, and is brought hence by flumes. Watsonville has a good fire department, six churches, Masons, Odd Fellows, Workmen, Good Templars, and Sons of Temperance Lodges. Pajaro Lodge, I. O. O. F., has a well selected library of 1,500 volumes. The Good Templars support a public reading-room. The town is lighted by gas, thus giving it a metropolitan aspect. Watsonville boasts of her schools, and from statistics and the quality of teachers who have charge of them, is well entitled to the honors which she claims. The school building is valued at about $12,000, and is one of the neatest and most substantial in the State.

Pajaro Valley.

The agricultural resources of the county are mainly confined to the Pajaro Valley. In it are some of the largest and most productive ranches in California. It is within this valley that Watsonville is located. In early days this entire tract of country was devoted to the pasture of cattle by the native Californians who first settled in this county, and at that time hides and tallow were the only articles of commerce. To-day the valley is divided up into fine ranches; towns sprung up and civilization has marched on to the successful building up of the valley. As early as 1852 a large number of settlers took up land in that region.

The population of Santa Cruz County is about 17,000, and her assessed valuation of property for 1885 was $7,809,185.

SHASTA.

Shasta County, situated at and comprising the head of the Sacramento Valley, is one of the largest and most sparsely settled counties of the State. Since the days of '49 and '50 it has been famous for the richness of its placer mines; and the amount of wealth in gold taken from its streams, gulches, and flats is inestimable. With the decline of its placers, the great resources of its mineral wealth, in numerous and extensive deposits of precious metals in ledges and lodes, began to attract the attention and are now rapidly engaging the devotion of capital and industry. Notable among latter discoveries is

Iron Mountain,

Which in reality is a mountain of silver, gold, and copper-bearing ore, situated 7 miles north from the town of Shasta, the county seat. The estimates of the value of the Iron Mountain Mine, made by mining experts and by cautious and careful assayists, are simply fabulous. The discoverers, Messrs. Camden & Magee, sold a portion of the claim in an undeveloped condition for $150,000 during the past year. The purchasers have a force of 100 men at work preparing for operations on a large scale, and erecting and placing mills and machinery. There are numerous other mines of known importance and richness, and developments that require, in most cases, heavy outlays and expenditures are slowly promulgated—

none the less surely. There is good reason to believe that in a few years this county will lead all others in mineral production.

A Word to Home Seekers.

With an area as large as that of some of the smaller States, the resources of the county are not comprised in its mineral deposits. Although for the greater part mountainous, it has thousands of acres of valley and bottom lands, a large portion of which is under prosperous and thrifty cultivation. Some of the best and largest tracts of such lands are, of course, occupied, but there are many ample parcels in various nooks and mountain valleys, that need only a fair outlay of time and labor, by men of proper energy and thrift, to transform them into homes that should content and make happy the proudest of mankind. Here, as elsewhere over the world, homes are not made in a season or a year, but patience, energy, and industry are offered no surer reward, go where they may.

There is no better climate, more healthful, pleasant, or picturesque section, and yet in its infancy in comparison with the thickly settled portions of the State. It has territory and means of support for ten times its present population.

The California and Oregon Railroad, recently extended through the county, makes accessible a section delightful for summer resort, and offers primal inducements to tourists and sportsmen. The territory traversed by the railroad, up the winding Sacramento almost to its source, is grand in rugged scenery, delightful in summer, under the white dome of Mount Shasta—a land of evergreen hills, glistening peaks, little valleys, and tumbling, ice cold trout streams.

The towns of the county are small and have often been described, and speak for themselves through local newspapers, of which there are seven in the county.

This sketch is directed more especially to the attention of mining capitalists and to searchers for homes; but, in the latter case, to people prepared to exercise a fair degree of patience, industry, and economy, and not to those expecting rich returns in a few months or a year from faint hearted efforts.

The one thing needed to insure the future growth and development of Shasta and the country north of there, is the completion of the railroad to the Oregon line. And, notwithstanding the opposition of a clique of malcontents who happen to control the organization of one of the political parties in the State, and who are strenuously urging Congress to forfeit the railroad land grant, there is reason to hope that the latter body will keep its faith with the people of the northern section of the State, and place no impediment in the way of the company which desires to extend the road. This line completed, the tide of immigration, which has for the last two years been setting in that direction, will increase until the northern country shall be filled with happy and prosperous homes. The present terminus of the railroad is at Delta, some 20 miles north of Redding, although considerable has been done beyond that point in the way of tunneling, grading, etc.

Water Supply.

Shasta is one of the best watered counties in the State, the annual rainfall being nearly 40 inches. Throughout the county are many streams of unfailing water supply, principal among them being the Sacramento River, which flows through the county from north to south. Besides this can be named Pitt and McCloud Rivers—two of the boldest and most picturesque streams in the world, along the courses of which is scenery of the grandest description—the Cow Creeks, Montgomery Creeks, Hazel Creek, and many other smaller streams.

Taxable Wealth in 1885.

Real estate and improvements	$3,699,584
Personal property	$1,210,512
Head of cattle	12,985
Head of hogs	10,000
Head of goats	5,440
Head of horses	14,937
Head of mules	266
Head of sheep	25,295
Acres in wheat	6,746
Acres in barley	3,531
Acres in oats	3,820
Acres in clover and timothy	175
Acres in vines	150
Value of railroad property	$130,000

SISKIYOU.

This county is one of the northern tier, at the California and Oregon boundary, between Modoc and Del Norte Counties, its northern boundary joining Shasta, Trinity, and Humboldt. It contains a large area of farming, mining, desert, swamp, grazing, and timber lands. The mining district comprises the western and southern sections; the agricultural is mainly in the center, and the grazing lands are mostly along the Oregon border, where, in the course of time, they will be converted into farms or fenced pastures.

Water Courses.

The principal river is the Klamath, which runs from the Klamath Lakes, at the Oregon boundary, across the country, and down through portions of Del Norte and Humboldt Counties, its watershed extending from Mount Shasta and Trinity Range, on the east, and the Siskiyou and Coast Ranges on the west, into which flows the Shasta, Scott, Trinity, and Salmon Rivers, on the east side, and numerous smaller tributaries from both sides. The Sacramento River also rises in the southeastern portion of this county, near the headwaters of the Trinity, Scott, and Shasta Rivers. Most of the McCloud River, a tributary of the Sacramento, is also in this county. At the Oregon boundary Little Klamath Lake, some 20 miles in length, is mostly in this county, connected by Link River with Big Klamath Lake, in Orgeon, which is over 40 miles long.

The Oregon Legislature unanimously adopted a resolution asking Congress to build a lock for navigation between both lakes and Klamath River to the California line, bringing all of Eastern Oregon nearer to the railroad now building toward this country.

Climate, Etc.

The winter is mild, with but little frost, and the high altitude renders the summer delightful, with cool and pleasant evenings. The average temperature in winter is about 40 degrees, and in summer about 65 degrees. Siskiyou seldom has more than a few inches of snow in the valleys, which melts away in a day or two; but the high mountains are covered with considerable snow, to afford a good fountain for summer benefit in supplying an abundance of water for mining and agricultural purposes.

Agricultural Resources.

Good crops of cereals are sure every season on both high and bottom land, with late spring rains and occasional summer showers, which render irrigation unnecessary during most years. Fruit and vegetables of a temperate climate also grow luxuriantly, and of the finest quality. The mountain meadows and hills also produce the most nutritious grasses for cattle, horses, and sheep, while all the various ravines and gulches are well adapted for gardening and vine growing by their shelter among the hills. The market, however, is very limited, being confined to home consumption, as it does not pay to haul over mountain roads to the railroad.

Stock raising is a leading industry, bringing great wealth from the great number of cattle and large amount of wool shipped off each year. Dairying also brings much wealth, for here are produced the finest butter and cheese to be found on the coast, great quantities of which are shipped to San Francisco every winter.

The Mining Interests

Are varied and very extensive, forming the richest mining district in Northern California, and consist of quartz, river, creek, bank, and high gulch claims, giving employment to a large number of people. Quartz mines abound along the southern boundary of the county, adjoining the New River district of Trinity County; also, on Salmon River, further north, and all its tributaries, in which the noted Black Bear and Klamath mines have each a 32-stamp mill. On Scott River—from its junction at the Klamath to the mountains adjoining the Shasta and Trinity boundary—good quartz, placer, bank, and hydraulic mines exist; also on Adams Creek, Indian Creek, Cherry Creek, and Deadwood, north of Scott Valley. In the vicinity of Yreka quartz mines exist in the Humbug Range, which is a continuation of the Salmon Range, and continues to Cottonwood and Siskiyou Mountains, several good ledges being located at Cottonwood. The Klamath River, about 15 to 16 miles north of this place, is also mined nearly its whole length in this county by means of wingdams, with current wheels to work the derricks, pumps, electric lights, etc., while huge dip wheels raise water for the sluices. In all these districts along the southern and western line of the county all other kinds of mining are carried on extensively. Besides the gold mines there are cinnabar, iron, coal, and other mines; also quarries of superior marble, stone, onyx, etc.

Extensive Forests of Timber

Of all kinds, principally sugar pine, fir, white and yellow pine, cedar, white and black oak, etc., exist in the valleys and on the mountains.

The Towns.

Yreka is the county seat and largest town in the county, while next in order are Fort Jones, Etna, and Callahan's, in Scott Valley; Sawyer's Bar, on Salmon River; Scott Bar, on Scott River; Oak Bar, Honolulu, and Henley, on Klamath River; Little Shasta, and Edgewood, in Shasta Valley; Berryvale, in Strawberry Valley, at the base of Mount Shasta, a noted summer resort.

Mineral Waters.

The county abounds in numerous mineral springs, the most noted being the Shovel Creek Springs, where rheumatics are cured; and Soda Springs, on the Sacramento, similar to the famed Congress water of Saratoga, New York.

Settling Up.

The near approach of the railroad has been increasing the population by newcomers from elsewhere; and when the road is finished we anticipate an immense immigration to settle up that sparsely settled county, which is very large, and yet does not contain more than 10,000 population.

Taxable Wealth in 1885.

Real estate and improvements	$4,067,021
Personal property	$1,708,639
Head of cattle	21,970
Head of goats	1,800
Head of hogs	5,260
Head of horses	6,733
Head of mules	670
Head of sheep	59,390
Acres in wheat	10,100
Acres in barley	6,000
Acres in oats	3,500
Acres in corn	150
Miles of mining ditches	250

SIERRA.

This is one of the oldest mining counties in the State. It is bounded on the north by Plumas, south by Nevada, east by the State line, and west by Yuba. It is a mountainous section, interspersed liberally with small and fertile valleys. Of late years these valleys have been placed under cultivation, and now contain numbers of farmers, who raise considerable quantities of hay, grain, and garden produce, which find a ready home market. The eastern portion of the county has an average elevation of some 4,000 feet, some of the higher peaks rising to from 6,000 to 8,000 feet. In winter the people are obliged to do their traveling mostly on snowshoes. Situated among the mountains, in the eastern part of the county, is Sierra Valley. This valley is almost completely hemmed in by mountains, and is some 20 miles long by 10 in width. The soil is exceedingly fertile, and most of it is cultivated annually. The valley is about 30 miles north of Truckee, and 18 miles northeast of Downieville.

Soil, Timber, and Water.

In the valleys and on the plateaus the soil is a deep loam. The western part of the county is watered by the headwaters of the Yuba River and its tributaries, and a number of smaller streams supply the eastern portion. Springs are numerous in all directions, and good well water is found at a depth of from 10 to 50 feet. Gold Lake, on the western slope, is the source of the middle fork of the Feather River. The lake is 4 miles long, and 2 in width. In the eastern half of the county are several picturesque mountain lakes, chief among them being Independence and Weber. These are delightful places of resort in the summer, and are visited by large numbers of tourists and pleasure seekers. Their waters are clear as crystal, and filled with trout. Summer hotels are maintained at these resorts, whose attractions are becoming widely known. Sierra is a heavily wooded county, the timber consisting mainly of sugar and yellow pine, fir, cedar, spruce, and wild plum. Lumbering is an important industry.

Mineral Resources.

The chief industry of the county has been mining. Millions of dollars have been taken from the hills and mountains in Sierra County, and there are yet mines that yield well. As late as 1880 the annual gold product of Sierra County was, in round figures, about $1,000,000. It is claimed that the ancient river channels, now covered by mountains of volcanic lava, contain untold millions in gold deposits; but as the hydraulic system of mining has been adjudged illegal it is difficult to understand how these old river beds can be made to yield up their riches.

There are scattered throughout the county rich slate and marble quarries, and iron and other ores, which, it is expected, will some day be of considerable value.

Prospective Railroads.

Sierra is likely to have railroad facilities in a few years, in which case her prospects will brighten materially. The Nevada and Oregon Narrow Gauge line, which starts from Reno, has been constructed as far as Sierra, and will, no doubt, yet find its way through Sierra Valley. In the meantime, all the important towns have stage connections.

Settlements and Lands.

From Sierraville to Beckworth's, a distance of about 25 miles by road, but 5 miles across, and skirting the west side of Sierra Valley, are found a double row of enterprising and thrifty pioneer settlements—one lying along and close to the foothills, the other along the swamp land, at various distances of from 1 to 4 miles. The intervening space is a vast "common" of rich, but unimproved and uncultivated land, having a natural growth of buffalo grass. Land is for sale at prices ranging from $2 50 to $25 an acre. Some 200,000 acres of Government land in the heavily timbered mountains, and on the open plateau, are still subject to settlement under the homestead and preëmption laws.

Principal Towns.

The county seat is Downieville, which was located as early as 1849, and whose early history forms a very important part of the annals of California. It was at one time the center of trade for the richest gravel mines. It is situated on both sides of the Yuba River, and lies in a deep cañon, picturesquely inclosed on all sides by mountains fully 2,000 feet high. The population is about 675. It is reached by stage from Marysville, on the Oregon Branch of the Central Pacific Railroad, distance 67 miles, or from Nevada City, in Nevada County, the terminus of the Nevada Central Railroad, distant 40 miles. There is a bank, good business houses, lodges, churches, and fraternal societies.

Sierra City is 12 miles east of Downieville, and has a population of about 425. It is the center of an important mining section. Many rich gravel mines are in this vicinity, which, with the several lumber camps and sawmills, give a lively appearance. Sierra Valley, an agricultural town, is 18 miles northeast of Sierra City, and has a population of 400.

Forest City is 7 miles south of Downieville, and 50 miles, by stage, from Marysville, and has a population of 625; altitude 4,500 feet. The Bald Mountain and Bald Mountain Extension mines, located here, have yielded over $2,000,000.

SOLANO.

Solano is one of the richest agricultural counties in the State. It lies just north of the Straits of Carquinez and Suisun Bay, and is bordered on the east, west, and north by Yolo, Sacramento, and Napa Counties. Solano embraces some 700,000 acres, of which about one seventh are salt marsh, or tide lands. Like Napa, Sonoma, and others of the Coast Range counties, her agricultural yield is less affected by drought than some of the more interior counties; hence there are few crop failures there.

Principal Towns.

The county contains a number of thriving towns, including Benicia, Vallejo, Fairfield (the county seat), Suisun, Elmira, Vacaville, Batavia, Dixon, Collinsville, and Bridgeport. All of these towns are either on the line of some railroad or at tide-water. Benicia—which was once the capital of the State—is a picturesque village on the slope overlooking Carquinez Straits and San Pablo Bay. It has always been noted for its colleges and seminaries of learning, and of late years has become the home of several manufacturing enterprises. Vallejo is about 5 miles distant, and owes its importance and trade chiefly to the fact that it is in close proximity to the Government navy-yard on Mare Island. Dixon, which lies near the northeastern boundary of the county, is a prosperous, growing community, situated in the center of a rich farming section.

A Great Fruit Section.

The Vacaville section, near the northern line of the county, has of late years developed a wonderful fruit growing capacity, several orchards in that vicinity yielding their owners great profits yearly. One important point in favor of the Vacaville section, is that its fruits, especially cherries, are among the first to reach market, thereby commanding high prices. The western portion of the county takes in a large extent of foothill land, some of which is susceptible of high cultivation, while the higher and rougher hills are devoted to grazing and sheep raising.

The Wolfskill orchard, at the foot of the Coast Range, in the northwestern part of the county, is one of the oldest and most noted in the State. It was a venture made when fruit growing was in its infancy in this State, but proved to be a profitable one. For many years Wolfskill was the first to supply the markets with fruit each season, and almost at his own prices. Latterly the Wolfskill orchard has had many competitors for the early season trade from the same locality.

Railroad Facilities.

Solano enjoys great advantages over many of the interior counties, because of her unequaled transportation facilities. Having a large water front, with wharfage facilities at Benicia, Vallejo, Collinsville, and Suisun, her producers have the benefit of lively competition in the carrying trade, and can market their products at the lowest possible rates.

Most of the large ranches in Solano have been divided up and sold to small farmers, but there is yet room for a large number of new settlers, especially those who may be able to pay higher figures for land than prevail in some of the counties to the northward. Solano boasts of an educational system, with about 50 districts and 5,000 school children.

The assessment roll for 1885 foots up, exclusive of railroad property, $16,871,870, a gain of nearly $1,000,000 over last year's roll. The tax rate for the coming year is considerably lower than in most counties of California; the laws are well administered, and the schools are liberally provided for and are good. In 1880 the population was 18,500 and is now estimated at 25,000, although the registered vote, 5,829, would indicate a population of 29,000. Land commands a good price, for its almost certain returns to its owner, when handled with any judgment, make it very desirable. It produces everything from the olive and orange and almond to wheat and potatoes. Two daily papers and six weeklies are published in the county, and secret societies and churches are all well represented.

Taxable Wealth in 1885.

Real estate and improvements	$16,872,582
Head of cattle	14,953
Centals of wheat	212,640
Head of horses	7,413
Head of sheep	65,808
Acres in vines	2,880
Gallons of wine made	207,530
Boxes of raisins made	23,507
Pounds of grapes sold	2,264,000

SONOMA.

Sonoma County lies 25 miles north of San Francisco. It is bounded on the south by the Bay of San Francisco, and Marin County; on the west by the Pacific Ocean; on the north by Mendocino County, and on the east by Lake and Napa Counties. Its seacoast front is about 60 miles. Its average length, from north to south, is about 50 miles, and its average width is about 25 miles. Its area is, in round numbers, 850,000 acres. The district of Sonoma originally included all the vast territory lying between the Sacramento River and the Pacific Ocean. At the first session of the Legislature the northern line was along the fortieth parallel of latitude to the summit of the Mayacmas Range of mountains, and thence south to the bay, including all the present County of Mendocino, and a portion of Napa County. In 1856, Napa County having been previously formed, the limits of Sonoma were contracted to the present boundary lines by the segregation of Mendocino County.

Two estuaries lead from the bay inland into the County of Sonoma, navigable at high tide for steamers and sail vessels of considerable size. The Coast Range passes through the northeast corner of Sonoma County, reaching the highest elevation, Geyser Peak; this peak is 3,470 feet above the sea level. The Geyser Springs, a well known California wonder, and a number of valuable quicksilver mines, are located in this part of the country. From Geyser Peak almost all of the County of Sonoma may be seen, and the Pacific Ocean, beyond the fair land on which it borders.

Sonoma has four valleys: Sonoma Valley, from which the county takes its name, Petaluma, Santa Rosa, and Russian River Valleys. The three last may be said to form one great valley, through which the San Francisco and North Pacific Railroad runs, from its terminus on tide water, for 60 miles, without a cut more than 10 feet deep on the entire line.

The four great valleys which we have just mentioned are the chief topographical features of Sonoma County. The southern section of the coast country lying just north of Marin County is celebrated for its dairy products. The hills are rolling, destitute entirely of trees or brush, and covered with a rich sward of grass, kept green most of the year by its proximity to the ocean. This dairy section extends nearly to Russian River; along that river and north of it to the county line, the county is densely timbered.

In addition to the principal valleys we have described, there are others equally beautiful and fertile, though smaller.

The San Francisco and North Pacific Railroad runs through the great central valley, starting from Cloverdale, its northern terminus, passing the principal towns for San Francisco. The whole time occupied from the northern limit of Sonoma to San Francisco is about four hours. Another railroad enters the western section of the county from Marin, the San Francisco and North Pacific Coast Railroad. This is a narrow gauge road running into the coast lumber region. Daily trips are made by this route to and from San Francisco. A steamer runs direct from San Francisco to Sonoma Valley, where it connects with a prismoidal, or one rail railway for the town of Sonoma. In addition to the facilities of travel given, there are a number of smaller sailing vessels which ply back and forth between San Francisco and Petaluma.

The climate of the County of Sonoma differs in many respects from that of other portions of the State; the average rainfall being about one quarter more than at San Francisco, 50 miles south.

Sonoma County is exempt from malarial disorders. There are no extremes of heat or cold, and nothing like winter. It is probable that more roses and flowers bloom in this valley, in December, than in all the hothouses of New England.

The soil on the hills has often great depth, and is admirably adapted to fruit culture. Like the valleys, these lands are covered only by scattered groves of trees, little of it being too steep for easy cultivation. It is exactly suited for semi-tropical fruit culture; here oranges, lemons, limes, English walnuts, almonds, and pomegranate trees grow well, and yield a certain crop. Semi-tropical fruits are grown in the valleys, but, excepting the almond and English walnut, not with as much certainty as in the warm belt.

Sonoma County possesses one marked advantage over most of the agricultural counties of this State. It has an immense source of wealth in its timber. The great redwood timber belt commences in Humboldt and reaches down the coast for 150 miles, terminating in Sonoma County. From the Valhalla to the mouth of Russian River, the county along the coast is timbered. The timber grows inland from the seashore for about 8 miles. A branch of the San Francisco and North Pacific Railroad leaves the main road at Fulton and runs into this timber, terminating at Guerneville, a lumber manufacturing center.

There are a number of gold mines which can be worked to advantage whenever the owners are ready to develop them. If the demand would justify it, the quicksilver mines of Sonoma could be made to produce from three to five thousand flasks of mercury a month.

There are a number of very promising veins of copper ore in this county, but none have been sufficiently worked to prove their value.

In many parts of Sonoma County, coal indications have been found, but none have been fully developed. There is a ledge near the town of Santa Rosa, in Cotate or Taylor Mountain, which is opening with most flattering prospects of success.

Among the noted places of interest in Sonoma County, the Geysers are justly entitled to preëminence. Of them sufficient may be learnt in a special article on the subject.

Skaggs' Springs are next in importance and popularity to the Geysers, and are crowded annually by those in quest of health and pleasure from all parts of the Pacific Coast. These springs are situated at the head of Dry Creek Valley, about 8 miles west of the depot of the San Francisco and North Pacific Railroad at Geyserville.

Little Springs are located 4 miles from Healdsburg, on the line of the railroad.

The Mark West Springs are situated on Mark West Creek, about 9 miles from Santa Rosa.

White Sulphur Springs are situated 2½ miles from Santa Rosa, under the Cotate Peak, which overlooks the city.

The Petrified Forest deserves liberal space in any description of the places of interest in the County of Sonoma. The forest is 16 miles from Santa Rosa. The trees are buried in volcanic ashes or tufta, and the ground around them fairly sparkles with particles of silica. The largest tree excavated is 11 feet in diameter at the root, and is 68 feet long. It is broken in several places. The forest can be reached and examined thoroughly in a day from Santa Rosa.

But it will be as an agricultural and viticultural county that Sonoma will achieve fame and prosperity in the future.

She has probably at the present date no less than 20,000 acres of vineyard, and Sonoma County wines are known wherever good and pure wines are prized. But large as her vineyard interests are at present, she is but just at the beginning of her career as a great wine producer, for her capacity is almost unlimited, and her supply will be governed only by the demand. And whatever other counties can produce in the way of fruits, Sonoma County can duplicate, with the advantage of thousands of acres favorable to the growth of the finer fruits denied to most other counties. Sonoma County is a great county now, but it is impossible to prophesy what she is destined to become, when the Pacific Coast will have a population of 20,000,000 instead of the 1,000,000 she now possesses.

We can at the best get only an approximate idea of the wealth of a county from the Assessor's statistics, but we will give those nearest at hand, and they are for 1884. At that time Sonoma County was credited with 64 thoroughbred horses, 6,371 American horses, 27,747 cattle of all grades and ages (no Spanish), 500 mules, 400 goats, 18,432 hogs, 350 imported or thoroughbred sheep, 14,750 graded, and 240,000 common; she was assessed on 34,000 gallons of brandies, and 846,000 gallons of wine, but this does not give us the production.

If we turn to the table of products, we shall have a better idea of what this county is capable. Land inclosed, 563,200 acres; land cultivated, 225,000 acres, on which was produced 800,000 bushels of wheat, 250,000 bushels of barley, 75,000 bushels of oats, 1,000,000 bushels of corn, 6,000 tons of potatoes, 25,000 tons of hay, 2,000,000 gallons of wine, and 250,000 gallons of brandy.

The above figures, which are much below the present, bear on the face the prophecy of the future, when the entire county shall be laid under contribution, as it most assuredly will.

It only remains to notice the towns and cities a little in detail.

The City of Petaluma is situated on Petaluma Creek, at the head of navigation. It is 37 miles northwest of San Francisco, with which it is connected by sailing vessels, by steamer, and by the San Francisco and North Pacific Railroad. Trains pass through the town every day, going south, connecting at Donahue with the steamer for San Francisco. Two trains also pass the city every day, going north, to the terminus of the road at Cloverdale.

The town is built on undulating ground; all the important streets are well graded, graveled, and curbed, having gutters, sewers, and open drains. Many of the business houses are imposing structures, with iron fronts in the latest style of modern city architecture. There are in and around the town handsome residences, with spacious and highly cultivated grounds, but even more attractive are the many homes of well to do mechanics and laboring men, half hidden in flowers, indicating that the people are thrifty and prosperous through all gradations of society.

Petaluma is favorably situated for the successful prosecution of many branches of manufacturing. There is a constantly increasing local demand for manufactures. The town has already made a creditable start in this line, and its mechanics have an enviable reputation at home and abroad for skill and fair dealing. It has a population of about 5,000.

Santa Rosa, the rival of San José, grew quite rapidly from 1854 up to 1859, but from 1859 to 1870, the town grew slowly. In the latter year it was credited with but 900 inhabitants; it had doubled its population in a decade. In 1872 the railroad was completed, the scene changed as if by magic, and in the short space of 5 years the town has increased from a population of 1,000 to 6,000. There are now 1,200 houses—many of them substantial brick structures—the city limits include an area of a mile and a half square, and there is a rapid growth in wealth as well as in population.

The public schools of Santa Rosa constitute one of the most important interests, and are among its chief attractions. The same salubrity of climate, beauty of scenery, and morality of sentiment that have been instrumental in building up the colleges of this city, have also produced a remarkable growth in its public educational facilities.

It has a population of about 6,000 at the present date, and is enjoying a large measure of prosperity. She has nine churches, four newspapers, nine hotels, five livery stables, two tanneries, one flour mill, one woolen mill, two canneries, one of the largest wineries in the State, and thirteen societies. These are given only as an indication of the status of Santa Rosa as a live city, to which name she is fairly entitled. Here is also located the Park and Train grounds of the Sonoma County Agricultural Park Association, which are among the finest and most complete in the State, and where the annual gatherings, attracted by the exhibits, are very large.

Fulton is a flourishing town on the North Pacific Railroad. It lies 5 miles north of Santa Rosa, and is the terminus of the branch road to Guerneville. This road was built in 1876, and makes Fulton a very lively railroad center.

Healdsburg is beautifully located on Russian River, near the confluence of Dry Creek with that river. The town is built on a gravelly plateau, lying between rich valleys; Russian River Valley on the east, and Dry Creek Valley on the west.

The most striking feature of the landscape near Healdsburg is Sotoyome, sometimes less appropriately called Fitch Mountain. It is a shapely isolated hill, around the base of which Russian River winds a tortuous course, as if reluctant to leave the flowery and beautiful valley to mingle its waters with the sea.

On an air line, Healdsburg is about 65 miles north of San Francisco; it lies a little west of north of that city, and is by railroad about 35 miles north of Petaluma, and is 15 miles northerly from Santa Rosa. It is near the center of the widely famed Russian River Valley, upon lands formerly included within the bounds of the Sotoyome grant, owned by Henry D. Fitch.

Far up the valley, where the hills draw together, with the Russian River flowing between, is snugly nestled the town of Cloverdale. It is a few miles south of the northern boundary of the county.

Cloverdale is a center from which stage roads branch out in many directions; first the principal and easiest route to the Geyser Springs starts from Cloverdale; these springs are but 16 miles distant from the town. There is also a daily stage line to Lakeport, and from there to the celebrated Bartlett Springs, and a daily line of stages to Ukiah—and through Anderson Valley to the Navarra ridge, in Mendocino County—both of which lead through a rich and soon to be thickly settled country. From Cloverdale to San Francisco the distance is about 85 miles. Trains of the San Francisco and North Pacific Railroad leave Cloverdale twice every day for the city, and return there at 12 M. and at 8 P. M. every day.

Russian River Valley, in the neighborhood of Cloverdale, can nowhere be surpassed for beauty and salubrity of climate. Its soil is fertile, and the river bottom lands are well adapted to the growth of hops. The hill land in this section of the county is well suited to grape culture. Here is combined that geniality of soil and climate essential for the production of a light and highly flavored wine.

Guerneville is a lumber manufacturing village in the Russian River redwoods, and situated about 16 miles northwest of Santa Rosa. It was first settled on the first of May, 1860, by R. B. Lunsford. It is located on the bank of Russian River, on what is known as Big Bottom. Here stood the finest body of timber in the State; the bottom is about 4 miles long, and was covered by a dense growth of mammoth redwood trees, which in the best localities would yield at least 800,000 feet of lumber to the acre. The largest tree in the bottom measured 18 feet in diameter, and made 180,000 feet of lumber. The tallest tree was 344 feet 9 inches in height. There was a hollow stump which stood just above the town, in which 20 horses could readily stand.

Duncan Mill is situated on the south bank of Russian River, 1½ miles from the sea, on the north side of the Russian River, at a point where the Northern Pacific crosses the river, the present terminus of the road.

The population is estimated at 33,000, and the assessed value of property in 1885 was $27,960,732, an increase of $3,148,621 over the year 1884.

STANISLAUS.

Stanislaus County can truly boast of being the banner wheat growing county of California. The statistics of the past few years have placed her first upon the list. This county, though one of the older and more prominent among the mineral counties of California, boasting at one time of her great mineral resources, quietly anticipating the great and important part she was to play in the future development of the resources of the great State of which she formed an integral part, and patiently awaiting the march of time to do justice to her hitherto unrevealed wealth, has, up to the present time, been comparatively little written about for the information of the immigrant who is continually seeking our shores, or even to the enlightenment of the people of other portions of our State. We have been frequently embarrassed when visiting other parts of the State, by the inquiry: "Stanislaus! Where is that?" and have more than once resolved that when opportunity offered we would publish, for the information of all, a description of the county, its resources, etc.

Until the fall of 1870 this county had no rail communication with the great commercial centers of California. The stage and steamer lines had unlimited sway as means of transportation and communication with other parts of the State.

The county is now traversed by three different lines of railway, the most extensive of which is the San Joaquin Valley division of the Central Pacific Railroad. This division leaves the main Central Pacific at Lathrop, crossing through the central portion of the county and continuing southward, through Merced, Fresno, Tulare, Kern, and the southern counties, affording communication for 300 miles.

The Stockton and Copperopolis leaves Stockton and crosses through the northern portion of the county, terminating for the present at Milton, in Calaveras County.

The Stockton and Visalia road also extends through the northern part of the county, crossing toward the east, and at present has its terminus at Oakdale, about a mile from the Stanislaus River. By this means the county is now placed within three or four hours ride of the most important cities in the State, and where before three or four days were consumed in reaching the metropolis, and the capital, now, with the facilities offered, four hours bring us in contact with the busy circles of either.

Location.

Stanislaus County forms a part of the great San Joaquin Valley. It is bounded on the north and northeast by Calaveras, Tuolumne, and Mariposa; on the south and southeast by Merced; on the southwest by Santa Clara and Contra Costa, and on the north and northwest by San Joaquin. Its eastern boundaries extend into the foothills of the snow-capped Sierras, and its western to the summit of the Coast Range, near Mount Hamilton. Passing through its very heart, within sight of each other, wending their way to the great Pacific, are the San Joaquin, Tuolumne, and Stanislaus Rivers. The two former are navigable at certain seasons of the year. The county was organized in 1854, being formed out of a portion of Tuolumne County. It comprises an area of 1,350 square miles, or about 800,000 acres of land, three fourths of which are susceptible of cultivation. Within its boundaries is situated one of the most fertile valleys in the world, yielding productions varied in their character and marvelously vindicating the nature of her soil.

Wheat, barley, oats, rye, corn, and potatoes, are the staple products. Cotton and hops are cultivated successfully in some parts, and the rich bottom lands along the rivers are well adapted to their cultivation. All kinds of fruits are successfully raised—oranges, lemons, limes, pomegranates, olives, peaches, apples, pears, almonds, walnuts, chestnuts, hickory nuts, peanuts, and grapes of the finest quality. From the latter is made some of the best brands of wine in the State.

It is but a question of a few years when Stanislaus County will rank prominently with other fruit-growing counties in the State. Already very large orchards and vineyards have been planted, and many of them show the results of the work. The great vineyard and orange grove of Hon. A. Schell, near Knight's Ferry, is worthy of mention. He has already 60,000 bearing vines, and 30,000 which will bear next year. He manufactured and shipped, in 1883 and 1884, each year, over 30,000 gallons of wine to New York, which brought a good price. His storehouse or cellar is blasted out of the solid rock nearly 200 feet. The orchard of Steven Rogers, superintended by Christopher Tharsing, is situated 3 miles west of Modesto, and is known as Paradise Gardens. It consists of 400 acres of river bottom land, on which there are nearly 40,000 trees, mostly bearing, and 20,000 vines are planted, some of which are now bearing.

There are also many fine stock ranches, the most noteworthy of which are J. D. Patterson's, west of the San Joaquin River, containing 20,000 acres, stocked with nearly 600 mares and mules, besides horned cattle; H. D. C. Barnhart's, containing 4,000 acres, between the Tuolumne and San Joaquin Rivers, and stocked with 600 head horn cattle, and 100 mules; Vivian & McPherson ranch, containing over 4,000 acres, stocked principally with mares and mules to the number of over 600. The hilly land is used for pasturing sheep, of which there are no less than 65,000 head in the county.

Already two surveys for irrigating canals have been made, one on the north and one on the south side of the Tuolumne River. When they are completed, the large tracts of land owned by single individuals will be cut up so that small farmers will have a chance to buy.

The earliest fruit in the State comes from the orchards of Stanislaus. Along the banks of her rivers, growing in luxuriant abundance, are to be found the wild grape and blackberry, which are early sought after as luxuries in their seasons. Alfalfa is easily cultivated, and its yield prolific. Wool growing is successfully and extensively carried on in the foothills, where thousands of sheep get pasturage from unsurveyed Government and railroad land.

The greatest portion of its surface is one level, unbroken plain, extending as far as the eye can reach. This plain extends 50 miles in width and 60 miles in length, and embraces within its limits some of the very finest agricultural land in California, and presenting, when under cultivation, a sight to behold. Imagine yourself riding a circuit of three days through a continuous space of waving grain. Such are the plains of Stanislaus just before harvest. The seasons here are wet and dry. The climate does not vary much throughout the county, and in temperature is about the same as that of the Santa Clara and Sacramento Valleys.

The summer heat ranges between 80 and 110 degrees, seldom reaching the latter extremity. The winters are mild and purely temperate, the thermometer varying from 30 to 70 and 80 degrees, rarely going below 30 degrees.

In summer, the nights are pleasant and delightful. A gentle breeze sweeps over the valley from one end to the other; it comes from the coast, and in a very great degree adds to the salubrity of the climate. The climate is considered very healthy, and of late, many tourists and visitors from the east in search of health have added their attestations to this fact by settling with their families here and influencing their friends to come. There is comparatively little sickness, and where it does prevail it is owing to other causes than the climate. In some of the mining districts, where irrigation is carried on extensively, chills and fever have become prevalent. But even this form of malaria vanishes before the cool, invigorating, and healthful breezes of the valley. Old pioneers, who came here in '49 and '50, still retain their vigor and exhibit manly specimens of robustness and health. Many of them have reached their threescore years and ten, and seem well preserved for another quarter. A generation has grown up in the county since its settlement and organization, who, with the rising generation, are remarkable for their good constitutions, sturdiness of limb, the perfect symmetry of their forms, and the bloom of health upon their cheeks.

The population of the county in 1884 was 9,764. At present it is not less than 11,000.

The wealth of the county in 1854 was $578,000, and the taxes 3.33 on the $100. In 1884 its wealth was $16,000,000 and the taxes 1.12 on $100. In 1885 its wealth was nearly $17,000,000, and taxes a fraction over $1 on the $100.

Modesto, the county seat, has a population of 3,000, two fine school houses, each two stories, one brick and one frame building. The schools employ nine teachers, besides the principal. There is as fine Court House and grounds as any county in the valley can show, and in the last year many improvements in building were made. The following handsome brick buildings were erected: Dr. T. E. Tynan's, 60 feet on H Street and 180 feet on Tenth, costing $65,000; Wood & Turner's, 50x120, costing $30,000; Union Block, 100 feet front, costing $30,000; Herman Christ's, 50x75, costing $17,000. No less than thirty frame dwellings were erected in Modesto during the last year, and no less than one hundred new and handsome dwellings in the county. Among the residences built in Modesto most worthy of mention are those of W. E. Turner, costing $17,000; Robert McHenry, $20,000; Willis Blodsoe, $16,000; Henry Voight, $12,000; also those of C. C. Wright, Judge W. O. Muier, Clarence Stonesifer, and others, whose cost has not been ascertained.

Turlock, another agricultural town, is situated in the southern part of the county, about 15 miles from Modesto, on the line of the San Joaquin Valley road. It is situated in the center of a large and fertile section. From 12,000 to 15,000 tons of wheat and considerable wool are shipped from here annually. Farmers in the neighborhood are prosperous. Land can be had in this section at prices between $5 and $15 per acre, and on easy terms.

Oakdale, a thriving little agricultural town, is situated in the northern part of the county, near the banks of the Stanislaus River, and is the present terminus of the Stockton and Visalia Railroad. The objective terminus of this road was Visalia, but it has reached no further than this point. The inhabitants of this lovely town number about 500. The town derives its name from its beautiful situation among groves of innumerable oaks. It is a favorite resort for picnic excursions and pleasure parties from Stockton, Sacramento, and nearer points. Considerable business is none here, it being the freighting point to many of the interior towns. This is a good location for health and prosperity.

Twelve miles directly northeast of Oakdale, in the extreme northeastern portion of the county, is situated the old mining town of Dentville (after Captain John Dent), commonly called and generally known as Knight's Ferry. It is beautifully laid out, on the banks of the Stanislaus River, and contains many cosy and handsome residences, nearly all of which are surrounded in profusion with foliage of the tropics. Here oranges, lemons, the date palm, the cocoa, and the citron obtain a luxuriant growth. Many orchards abound, and vineyards, weighed down in the proper season with the choicest of varieties, bedeck the surrounding hills. The celebrated Red Mountain Vineyard, of Schell, Krause & Co., is located near this place. W. E. Stuart's orchard and vineyard, commanding a fine view from the prominence of its situation, adds to the many attractions of this little village. There is one large flouring mill, three stores, two hotels, a blacksmith shop and a livery stable, a brewery, three saloons, a public library, and a Masonic and Odd Fellows' Lodge.

This town has become somewhat renowned as the rendezvous for a short while in 1853 of Captain U. S. Grant of the United States Army, who has since become so celebrated in the history of our country. Captain Grant paid a visit in that year to his relatives, the Dent family, who lived here in early times. Many of the old residents of the place remember him well.

It was the county seat of Stanislaus County from 1862 to 1871, when it was removed by a popular vote to Modesto. The first agricultural fair in the county was held at this place. The agricultural interests surrounding it are good. It has been generally considered a mining town, but these two industries are nearly equally divided. It has the best water power in the State, and needs only capital and enterprise to put it into use. This would be a most excellent location for the establishment of woolen mills or other manufacturing industries. A railroad is badly needed through that section of the country, leading on to Sonora and over the mountains. When such is effected, this town will at once revive and become one of the most important in the county.

La Grange, commonly called in early days French Bar, is a little mining town, situated in the eastern part of the county, near the Tuolumne, Mariposa, and Merced County line. In early days it was a flourishing mining camp, considerable trade being centered here. It was the county seat of Stanislaus County for several years. The town is still kept up by the mining interests around it.

Waterford, a small town situated on the Tuolumne River, about 12 miles east of Modesto, has two stores, one hotel, one saloon, and several residences; a public school, a Grangers' hall, and is a purely agricultural town.

Hill's Ferry is in the southwestern part of the county, on the San Joaquin River, and near the Merced County line. The town site is laid out on the old Mexican grant, known as the "Orestimbo Rancho." It was at one time considered the head of navigation on the San Joaquin; but steamers now venture considerably further than this point. This town is maintained by the agricultural interests of the great "West Side," which district contains within its limits an area of the most fertile soil in California. The town has shown fresh signs of progress within the last few years. A new stimulus has been added by the great irrigating projects of Miller & Lux, and others. Canals have been cut through the region of country surrounding it, causing the brightest hopes and prospects for the future.

Graysonville, another agricultural town of the "West Side," occupies a beautiful site on the banks of the San Joaquin, about 20 miles below Hill's Ferry, and 15 miles from Modesto. It was settled at an early day, being built on a portion of the "Rancho El Pescadero." The same character of resources surround it that enable Hill's Ferry, Turlock, Oakdale, and other agricultural towns in the county to maintain their prominence. J. W. Van Benschoten, Thomas A. Wilson, Mrs. R. B. Smith, J. D. Patterson, and other large land owners, have their tracts near here. Vast herds of cattle and flocks of sheep are kept in the Coast Range of mountains, a few miles distant. The town contains one hotel, one store, one large warehouse, one livery stable, one restaurant, five saloons, and other business houses; a post and express office, a public school, Grangers' Order and hall, and many private residences. This is the official headquarters of the "West Side Irrigation Commissioners." A stage line affords communication between here and Hill's Ferry and Bantas.

Ceres, a small town situated on the railroad between Modesto and Turlock, was laid out in 1874, by R. R. Whitmore, who owns a large tract of land in the neighborhood, and the large warehouse in which is stored immense quantities of grain from the surrounding country. There is a store here and a blacksmith shop, and a resident minister, also a public school.

Salida, another small railroad town, is situated near the Stanislaus River, between Modesto and Lathrop, on the vast domain of John Murphy, another one of the large farmers of the county. There are two large warehouses here, a Post Office, restaurant, and blacksmith shop.

This completes the number of live towns in Stanislaus County. There are several *dead* ones, which flourished in the past, but whose names have now passed into the history of the county as "what was, but are no more." They may revive in the progress of events, and the future historian of the county may be compelled to write the names of "Paradise," "Tuolumne City," "Westport," "Empire City," and "Adamsville," but we are obliged to leave them for the present with the dead.

The total amount sown in cereals in 1880 was 390,000 acres; in 1881, 400,000 acres; in 1882, 435,000 acres; in 1883, 465,000 acres; in 1884, 490,000 acres; and in 1885, 510,000 acres. A part of it was, each year, in summer fallow.

SUTTER.

Sutter County lies just above the confluence of the Sacramento and Feather Rivers, bounded on the west by the Sacramento, and on the east and south by the Feather. It contains 611 square miles of territory, is nearly square, and therefore, only about 25 miles across in any direction. The population in 1880 was 5,350; at present it is estimated at 6,000. The assessed valuation of real and personal property is $8,354,556; in 1880 it was but $3,901,522. In the year 1883 the State Board of Equalization raised the assessment 20 per cent, so that the increase in assessment from nearly $4,000,000 to upwards of $8,000,000 does not represent the actual increase in value. The latter, however, has been very great, as the figures show. The assessment roll of 1885 represents an average wealth of nearly $1,400 to every man, woman, and child in the county, and places Sutter in the front rank of counties so far as wealth is concerned. The contour of the county shows a level surface, with the exception of that strange freak of nature, the Marysville Buttes, an isolated peak of 2,100 feet in height, situated in the southwestern part of the county. From its base to the Sierras on the west and north, and the Coast Range on the east, is one unbroken plain. On the western side of the county, and parallel to the Sacramento River, a vast tule basin extends the whole length of the county, from 1 to 8 miles in width, widening as it approaches the Feather River on the south. During the winter season this basin fills with water from the Sacramento River, and affords a resort for millions of wild water fowl. When the waters in the river recede, the tules become dry, with the exception of a slough through the center, and the land then affords excellent pasturage for large herds of sheep and cattle. The water in the slough is pure and clear. Large quantities of fish are caught from it when the floods subside, principally cat, perch, and sturgeon.

These tule lands are similar in quality to that of the islands in the lower Sacramento and San Joaquin Rivers, which are renowned for their great fertility and the production of immense crops when reclaimed. An attempt was made to reclaim the whole basin in the year 1874 by the building of an immense levee across the head of the slough, reaching from the Marysville Buttes to the highlands bordering on the Sacramento. This effectually shut off the overflow from the Sacramento River and Butte Slough, but the project met with strenuous opposition from the settlers on both sides of the Sacramento above the dam, who held that the levee caused damage to them by backing the water in flood-time. Armed bands of the settlers made secret raids on the levee by night and succeeded, on two occasions, in breaking the levees and flooding the district. The outlook for the projectors of the reclamation scheme became so discouraging by reason of these raids, that the attempt at reclamation by that method was abandoned and a new system was inaugurated, which consists in leveeing by districts. The latter is much the more expensive method, but fully as effectual. As a result large tracts of this most fertile land are reclaimed, and add greatly to the wealth and productions of the county. The Marcuse, Bell, Belcher, and Sutter County Land Company tracts are instances. Within the past two years the Sutter County Land Company has reclaimed a tract of 5,000 acres. Marcuse and Belcher have also made large additions to their levee systems. Thus the whole basin will eventually be reclaimed. Between the tule basin and the Sacramento River lies a strip of fertile country, which supports the flourishing town of Meridian, so called because of lying on the exact meridian of Mount Diablo. The town is situated on the bank of the Sacramento, which affords excellent facilities for the transportation of the products of the county. That portion of the county lying to the east of the tule basin and the Buttes is "the garden spot of California." A bird's-eye view shows it to be laid off in squares with county roads bordering every section. Neat and substantial fences inclose every foot of the entire surface outside of the roadways. Neat cottages and large country residences, almost palatial in construction and design, dot the entire plain. The sturdy live oak trees, scattered promiscuously through the valley, give it the appearance, from a distance, of one vast old eastern apple orchard. Now and then a square of the tall, graceful poplar marks the spot where nestles the stately residence and happy home of the prosperous farmer. Orchards and vineyards of hundreds of acres in extent are seen on every hand. Before the harvest the entire county appears draped in green, relieved by occasional squares of the brown summer fallow. The county is bordered by a deep rich foliage of an unbroken line of timber belt, broad and luxuriant, which follows the lines of the rivers and almost entirely encircles it. The belt serves as a fitting frame to the beautiful picture.

Sutter County has no use for a Government Land Office. Every acre is owned and occupied, with the exception of five sections on the immediate summit of the Butte, and even that is held under possessory claims, and serves as pasturage for sheep and other stock.

Aside from the immense and never failing yield of cereals, Sutter County is famous for its fruits. The famous Briggs orchard, with its hundreds of acres and thousands of trees, was the first to demonstrate to the world the wonderful possibilities of the State as a fruit producer. It has lost none of its prestige, and continues to furnish the markets of San Francisco, Chicago, and New York with its products. It is always first in the market with its luscious peaches, the Early May. The area planted in orchard in the county is already large, and is rapidly increasing. Among the large orchards are those of Bunce, Chandler, Stabler Brothers, and Abbott. As a sample of the growing interest we may note that of A. F. Abbott. He has 300 acres on his home place in orchard, containing between 28,000 and 30,000 trees, and is now setting 125,000 additional. There is a vineyard of 8,000 vines on the place, which he is also enlarging. During December last he purchased 675 acres of land, within 3 miles of Yuba City, 243 of which will be planted in orchard.

The soil and climate of the county are pronounced superior to any other section of the State for fruit growing by all the dealers who have taken the pains to examine into the matter, notwithstanding which the price of land is less by more than 100 per cent than in less favored localities farther south. The means for transportation are of the best, being both by river and rail.

Yuba City, the county seat, is situated at the head of navigation on the

Feather River, just opposite Marysville, and but 1 mile distant from the latter place. It contains but a few hundred inhabitants, and but for the fact of being the county seat might be considered a suburb of Marysville. The bulk of the trade of the county naturally tends towards Marysville. The Court House is a fine structure, which cost about $30,000, and is surrounded by beautiful and well kept grounds. The town is the headquarters of the Farmers' Union, which does a banking business and has two immense warehouses on the banks of the river for the storage and shipment of grain. The whole is under the immediate supervision of George Ohleyer, an active and prominent member of the Anti-Debris Association. A large fruit cannery is located near the town, which has gained an enviable reputation for its goods, although established but two years ago. The county takes its name from General Sutter, who owned and occupied a beautiful home on the Feather, 6 miles below Yuba City, in the early history of the State, and which was then and is still known as Hock Farm. The place is possessed of a beautiful grove, laid out by General Sutter, which has since become famous as a picnic resort.

The people of Sutter are prosperous and progressive. They have an abundance of well supported schools and churches. There is seldom heard among them complaint of hard times, and their lot in life is apparently a pleasant one. Yuba City, the county seat, has a population of about 1,500, and supports a large weekly newspaper, the "Sutter Farmer."

Taxable Wealth in 1885.

Real estate and improvements	$7,963,465
Head of cattle	6,241
Head of hogs	11,958
Head of horses and mules	6,709
Head of sheep	41,189
Acres in wheat	99,182
Acres in barley	13,735
Acres in oats	1,208
Acres in corn	140
Acres in vines	150
Boxes of raisins made	2,392
Pounds of grapes sold	330,000

TEHAMA.

Lying north of Colusa and Butte, south of Shasta, and extending across the Sacramento Valley from Plumas on the east to Mendocino on the west. Its area is 3,125 square miles, embracing 2,000,000 acres of land. Tehama has been distinguished as one of the leading wheat growing counties of the State, but it has also a variety of important industries. It embraces both valley and foothill lands, each section ranking high in point of fertility. That it is a county which offers superior inducements to immigrants is shown by the fact that but about 150,000 of its 2,000,000 acres is cultivated annually. Of course agriculture has been chiefly confined to the valley section, along the Sacramento, where transportation facilities have thus been best. Farming, or rather wheat growing, is conducted on the same extensive scale that prevails in Colusa and a few other counties.

The lands of Tehama are thus divided: Valley lands, 170,000 acres; lower foothills, 1,280,000; higher foothills and Sierra Nevada, 270,000; Coast Range mountains, 240,000 acres.

There are several small valleys in the western portion of the county. Between the higher ranges of mountains and the valleys proper lies the foothill region. East of the Sacramento River, in the northern part of the county, the valley is narrow, widening out below Red Bluff into a broad expanse of valley land.

Water Courses.

There are several streams of water coursing through the county in addition to the Sacramento River. The North Fork of Cottonwood Creek forms a part of the boundary line between Tehama and Shasta Counties, and is a splendid stream of living water. The South and Cold Forks of Cottonwood Creek, Red Bank, and others which rise in the Shasta Mountains, and which flow northeasterly into the Cottonwood, or southeasterly into the Sacramento, are dry for several months in the year—during midsummer. Battle, Dry, Antelope, Paynes, Mill, Deer, Chico, Butte, and other creeks rise in the Sierra and drain the eastern portion of the county. These are living streams. Good well water is obtainable in most places at depths varying from 20 to 40 feet.

Climate.

The climate of Tehama County compares favorably with that of any portion of the State. For about three months in summer the weather in the valley and lower foothills becomes quite hot at times, while in the higher altitudes it remains cool and delightful. The winters are mild in the former localities, but severe in the mountains. The rainfall begins often as early as September, and continues until May, the average fall being about 25 inches.

Timber.

The lumber business has been in the past an important industry in Tehama. The mountain sections of the county abound in splendid forests of pine, fir, and oak. Until within a very few years the lumber business employed more men than any other in that county, but such is not now the case. The timber is floated down from the hills in streams and flumes. One company alone has, or did have a flume 40 miles in length through which upward of 140,000 feet of lumber per day could be floated down from the mills to Chico. The mills of Tehama County have turned out as high as 40,000,000 feet of lumber per year.

Agricultural Resources.

The great fertility of soil and natural resources of Tehama County are now attracting much attention from immigration societies and newly arrived persons in search of places to locate for the remainder of their lives. The rich valley lands of the county yield abundantly of all kinds of grain, and even fruit, while the foothills have been found to be especially adapted to fruit and grape culture. The hardier fruits have been successfully grown at an elevation of more than 5,000 feet. As a rule, irrigation is not essential to success in horticulture, although, if desired, an abundance of water can be had for that purpose, the foothill section being well supplied with ditches formerly used for mining. The soil of the valley, generally, is a reddish loam, while in the immediate vicinity of the river there is a strip of unusually rich bottom loam. In the months of May or June, to the eye of the traveler is presented a beautiful sight in this portion of the Sacramento Valley. He sees before him an unbroken expanse of level land, some 40 miles long by 25 miles wide, covered with waving grain just putting on its golden hue. No person can witness this spectacle without being impressed with the fact that a section of country capable of producing so bountifully of breadstuffs has a great and prosperous future before it. On the west side of the valley the foothills are better adapted to fruit culture than on the east side. The soil is a light, reddish, gravelly loam. In every case where experiments have been tried in fruit culture the venture has proved a success. These foothill lands have a light growth of manzanita, chaparral, etc., and are cleared without great expense or labor.

Viticulture.

The recent venture of Senator Stanford, in establishing his great vineyard, comprising several thousand acres, in the vicinity of the town of Vina, has greatly stimulated the grape growing industry in Tehama. The prospect is that as years roll by and the county becomes more thickly settled, grape growing in that section will become one of the leading industries.

The Wool Product.

The mountain and hill sections of Tehama have heretofore been largely devoted to the sheep industry, and the wool product of the county has been enormous. Owing to the fact that assessments for taxable purposes are now made throughout the State on the first Monday in March of each year, wool, like capital, seems to have found some method of evasion. The returns of the Assessor for 1885 report no wool on hand on the first Monday in March, although it is a well known fact that Red Bluff is the most prominent wool market in the State, outside of San Francisco. It is too early, on the date mentioned, for the spring clip to be on hand, and that of the preceding fall seems to be usually disposed of long prior thereto. It is estimated, however, that the average yearly output of wool in Tehama County is something like 2,000,000 pounds.

Lines of Travel.

The California and Oregon Railroad traverses the county north to south on the east side of the Sacramento River as far north as Tehama City. At this point it crosses to the west side and connects with the California Northern which runs on that side of the river. Every town in the county, of any importance, has either rail or stage communication.

Chief Towns.

Red Bluff is the county seat, and is the largest town in the county. It is at the head of navigation on the Sacramento, on the west side of which it is located. It is 135 miles north of Sacramento, and has an elevation of more than 300 feet above the sea level. It is an incorporated town, with a population of upward of 4,000. It is an enterprising community, and does a large trade with the northern section. In addition to the facilities afforded for education by the regular district schools, a higher course may be pursued at the Red Bluff Academy, which as an institution of learning, is a credit to the town. The streets are wide and beautifully shaded; the residences are large and substantial. Among the public buildings are a large Court House with handsome grounds, the Good Templars, Opera Hall, the Odd Fellows' block, and the Masonic building. The press is well represented, and both daily and weekly papers are published. It has factories and mills, gasworks and waterworks, marble yards, banks, wagon and carriage factories, etc.

The second town in size and in importance is Tehama, situated about 12 miles south of Red Bluff. It is a place of steady growth and has many local advantages.

The other towns are Vina, Sesna, Corning, and Paskenta, all of which are situated in the midst of rich agricultural districts.

Government Land.

A pamphlet issued not long since by the California Immigration Association says, referring to Government lands in Tehama: "In this county thousands of acres of Government land awaits the newcomer. Unimproved lands can be bought at from $5 to $20 an acre, and improved farms at from $20 to $40. Fruit growing and grape culture are in their infancy, but sufficient has been done to demonstrate that excellent fruit can be grown. One of the leading canning houses of the Pacific Coast, purchases its fruit here on account of its superior flavor. Wheat 6 feet high, yielding 25 bushels per acre, has been grown on land plowed but once."

Taxable Wealth in 1885.

Real estate and improvements	$8,062,321
Personal property	$1,527,315
Head of cattle	6,230
Head of hogs	14,337
Head of horses	5,033
Head of mules	1,135
Head of sheep	185,781
Acres in wheat	120,000
Acres in barley	18,750
Acres in oats	7,385
Acres in corn	150
Acres in vines	4,528
Value of railroad property	$186,685

TRINITY.

This county properly belongs to the class whose trade is directly tributary to the Sacramento Valley. It adjoins Humboldt on the west, but draws its supplies chiefly through the railroad system that penetrates Shasta on the east. Its area in square miles is 2,625, and its acreage is 1,680,000. The population in 1880 was a little upward of 5,000, which has since been increased somewhat.

Of its settlement and early history little is known, and that little is so mixed up with tradition that it is not always easy to tell where the one begins and the other ends. The first authentic record of its being visited by whites dates from 1845, at which time the late Major Pearson B. Reading visited the headwaters of its main river, and spent some time successfully in trapping. He gave the river the name of Bears, believing it emptied into Trinidad Bay. In this, however, the Major was mistaken, as the Trinity empties into Klamath River, between 20 and 30 miles below the county line. In 1848, some six months after the discovery of gold by Marshall at Sutter's mill, the Major organized another party, and, crossing the dividing ridge below Shasta, followed down the little creek which has since borne his name, and mined with great success on Reading's Bar. His party was mainly composed of Sacramento Valley Indians, and they were all treated with great kindness by the Indians here. A party of

Oregonians, on their way from that Territory to the mines, heard of the Major's discovery, and repaired hither, and although there were thousands of acres of rich ground along the river, unclaimed, they threatened to make trouble to the Major's party on account of his Indian help, upon which the Major broke up his mining operations, and with his party returned to the Sacramento Valley.

At first mining was confined to the bars and bed of the Trinity River, so it was not until the summer of the following year that the coarser gold deposits were discovered. Even then the country did not fill up with miners as fast, proportionately, as other places. The distance from the places where the various necessaries of mining life could be procured, joined with the difficulty of traversing the high range of mountains which separated the Trinity miners from the Sacramento Valley, on the one hand, and the ocean on the other, operated as a drawback to the settlement and development of the country. Steamboat navigation on the Sacramento at first reached no higher than Colusa; then to Monroeville, and finally, in 1853, to Red Bluff. Even at this last named place there still remained a journey of 80 miles to be made with saddle animals, while all freight was brought over on packed mules. The first printing press was brought over in this manner, in the fall of 1854, and the Trinity "Times" established. Such imperfect modes of communication could not fail to retard immigration, and keep up high prices. So late as 1853 flour retailed as high as from 20 to 30 cents, and other necessaries were in proportion. In 1857 a charter was obtained for the Weaversville and Shasta Wagon Road Company, and a road built over the mountains. This at once made a great reduction in the cost of living, etc., and during the following years, until the flood of 1861, this county received great accessions of population, and many mining companies were set on foot to aid its development.

Upon the organization of the State Government, the county was attached to Shasta County for judicial purposes. The following year it was organized as a separate county, including within its bounds all the territory comprised in the Counties of Del Norte, Humboldt, and the now disorganized County of Klamath. The diversity of interests soon led to a division of this large scope of territory, and that portion along the coast was set off and made into a new county, Humboldt, and the part drained by the Klamath River, with the coast adjoining, became Klamath County. Trinity has since retained the boundaries then adopted.

The exciting search for gold yet holds the mastery, and as this is the business of the people, to it we shall chiefly refer. The placer mines of Trinity—now extensively worked by the hydraulic process—were among the earliest found, and have always been classed with the best paying. A conservative estimate places their average annual production at a round million of dollars, but the last three seasons have fallen below this, owing to scarcity of water. This year, up to the present writing, the weather has been favorable, and a good mining season is assured. This means prosperity for all residents. In mentioning the hydraulic mines, it may be incidentally stated that debris troubles cut no figure here, as the slickens peacefully wend their way down Trinity River to its junction with the Klamath, and thence pursue their journey to the sea without let or hindrance.

Until within a few years the sources which fed the streams and leads with gold received but little attention, but the more recent discovery of numerous paying gold quartz ledges has created a considerable boom in this direction, and resulted in opening here some of the best paying mines in the State. Deadwood and Bullychoop Districts have proven rich and extensive, and they are by no means fully prospected. East Fork and New River, later discoveries, show remarkably well for the amount of work done, and present an inviting field for the mining capitalist.

There are at the present time some 15 mills and 30 arastras grinding quartz in Trinity County, and it will not be long until the yield of bullion from quartz will equal or exceed that from the placer mines.

As regards population and wealth, Trinity County is gaining moderately. There are at this time less than one half the Chinese that were here in 1880, but their loss—if such it can be called—is more than made up by the increase in industrious, social, home building whites. As before stated, the exceeding dryness of the season of 1884–85 had a depressing effect, but the present outlook for the mining interests is so favorable that the people are cheerful, and all have high hopes of good, lively times in the near future.

Taxable Wealth in 1885.

Real estate and improvements	$1,128,070
Head of cattle	4,049
Head of hogs	1,100
Head of horses and mules	1,303
Head of sheep	36,135
Acres in wheat	827
Acres in oats	68

TULARE.

The following on Tulare County is taken from a carefully prepared article appearing in the "San Joaquin Valley Resources," April, 1886:

Tulare County, situated near the southern part of the San Joaquin Valley, is the sixth in size in the State of California, and embraces an area of about 6,406 square miles, or 4,099,840 acres. The thirty-sixth parallel of north latitude passes through the county a little south of the central portion. The county extends from the summit of the Sierra Nevada to the summit of the opposite Coast Range, and thus comprises in its central part a full section of the great San Joaquin Valley from east to west, which here has a width of 50 to 60 miles. The greatest length, from summit to summit, is 140 miles, and greatest width, from north to south, about 60 miles. In the valley are 1,175 square miles, or 1,136,000 acres; in the lower foothills, 390 square miles, or 249,600 acres; in the higher foothills and the mountain portion of the Sierra, 3,245 square miles, or 2,086,800 acres; in the Coast Range mountains, 200 square miles, or 128,000 acres. There are also about 20,000 acres of tule land. Included in the total area of the county is Tulare Lake, in the valley, covering 260 square miles, or 166,400 acres.

The Valley,

On the wide plain lying between the two ranges named, has a northerly slope toward the tide water of one foot to the mile, and a greater slope from the base of the mountains to the trough of the valley, west of its center. The average elevation above sea level of the plain, in Tulare County, is about 300 feet. (The extreme southern end of the valley, in Kern County, is 100 feet higher.) Several streams from the Sierra flow through the plain, the larger ones emptying into Tulare Lake. The greater part of the plain is treeless, but there are large forests of immense white oaks on the eastern side of the valley. .There is also a considerable amount of timber of the same kind along Kings and Tule Rivers. The largest body is in the delta of the Kaweah River. The total area of timbered land in the plain aggregates about 400 square miles, and Tulare County is the only one in the San Joaquin Valley well supplied in this respect. The broad prairie is exceedingly fertile, and its surface unbroken by any readily noticeable elevation or depression. Near the foothills of the Sierra is a belt of what is termed "hog-wallow" land. These "hog-wallows" are little round knolls, ranging from a few inches to 3 or 4 feet in height, averaging 1 to 2 feet and varying in diameter from 15 to 50 feet. Here and there through the valley winds a dry slough, that was at one time the bed of a stream, the course of which has been changed to some other channel; but other than these, few irregularities of any kind are to be seen. In a few places subject to overflow, or where water is near the surface, is a dense growth of willows; but with this single exception there is no brush of any kind to be cleared from the land. All of such land, it may be remarked, was among the first settled upon and cultivated. No stones of any kind larger than a small pebble are mixed with the soils of the valley. And when the ground is sufficiently moist there is nothing to prevent the plow from turning over the new land, which may be cultivated the first year in the same manner as an old farm, and with equal chances of producing a good crop.

The Rivers

And smaller streams that flow into the valley are most numerous on the eastern side, having their watersheds in the Sierra. The largest is Kings River, having a drainage area in the mountainous portions of Fresno and Tulare Counties of 1,850 square miles. The other streams in Tulare County, south of Kings River, are, in the order named, Kaweah River, with catchment area of 600 square miles; Tule River, with 440 square miles; Deer Creek, 130; White River, 65; Poso Creek, 278; and a number of smaller streams, whose drainage areas are wholly within the foothill region. The streams issuing from the Coast Range are small and unimportant, except immediately after a heavy fall of rain. The water supply is a matter of great moment in a country where it is necessary to irrigate in order to farm, except in years of more than average rainfall, or in those localities where the ground is always moist. In seasons of heavy rainfall the discharge from all these streams is considerable, those from the Sierra carrying volumes of water late into the season, that entitle them to be called rivers, which designation, many of them, in seasons when the supply is short, do not deserve. The periods of greatest discharge from these streams from the Sierra are the rainy season, and the early part of summer, when the warm sun melts the snow stored in the mountains during the winter. It is during this second period of high water that the greatest amount of irrigation is done. It has also been found advantageous to wet land in the winter time, and when thoroughly moistened then it will require no further application of moisture by artificial means, unless it is desired to grow a second crop after the grain has been harvested, when it is necessary to wet the land again. There is a large area of the valley in which artesian wells may be made to furnish the needed water for irrigation. From all sources the supply is abundant, and by the adoption of a perfect system for the utilization of the water, all the land in the valley suitable for cultivation may be irrigated.

Irrigation.

In a country where the wet season occupies less than half the year, where the average annual rainfall is light, and where the long summer is absolutely rainless—or so near it that a midsummer shower is regarded as a phenomenon—it is necessary to irrigate land in order to carry on farming successfully.

A number of large canals convey water from Kings, Keweah, and Tule Rivers, and Deer Creek, a great distance into the valley, from which a number of smaller distributing ditches carry it to all parts of the irrigated districts tributary to these streams. The total length of all the main irrigating canals in the county aggregates about 450 miles, the largest of which is the 76 canal, which is 100 feet wide on the bottom, 4 feet in depth—5 feet when running full—considerably larger than the Erie Canal, and will irrigate 20,800 acres of land within 24 hours. It taps Kings River in the foothills, and conveys the water to a large area between that stream and the Kaweah River. Several other large canals are taken from the same stream. The stream next in importance as a source of water supply is the Kaweah and its branches, from which are taken sixteen canals. A number of smaller ones are taken from Tule River and Deer Creek, and the water from all permits of the successful cultivation of an immense area of fertile land, that must have otherwise remained unproductive. It is only necessary to wet the ground once or twice in the driest year; and by irrigating after the grain has been harvested, barley, corn, or other late crops, may be grown on the same land, which is thus made to do double duty in a single year. After ground has been irrigated two or three years, thereby filling the substrata with moisture, a very small amount of water is needed thereafter. Fruit requires much less than grain. The mean discharge from all the streams of this county is about 6,500 cubic feet per second, and it is calculated that a stream furnishing 1 cubic foot per second will irrigate 160 acres of average land the first year. Thereafter the same amount will perform a greater duty. The various ways of using the water cannot be described in a brief article like the present. The usual expense of water for irrigation during a season is from one to two dollars per acre.

Artesian Wells.

There is a large section of Tulare County that is not dependent upon the streams for irrigation, the necessary supply of water being obtainable from artesian wells. The large area of country known as the "artesian belt," in which water may be obtained by boring, is in the western part of the valley section of the county, and extends its full length from north to south. There are several wells also in the valley counties above and below Tulare. The first well was bored in 1879, and during the last four years about 150 wells have been bored in this county alone. This belt of country lies east of Tulare Lake, and also directly north and south of that body of water. Attempts are now being made to secure artesian water on the west side. The full extent of this area is not known, but is fully 700 square miles. The eastern boundary of the belt is not definitely determined, but it is believed that by approaching too near to the foothills water will not rise to the surface. None of these wells have been sunk to any great depth, however, and perhaps by going deeper running water may be obtained. Most of the wells are shallow. The depth at which the first water-bearing stratum of sand or gravel is penetrated varies from 310 to 640 feet, although several wells have been bored to a depth of 800 feet, passing through several of these strata. The deepest wells in the county are north and northeast of Tulare Lake. The greatest number of good wells are between the towns of Tulare, Tipton, and Alila and the lake. The mean distance between the depth of the shallowest and deepest well is about 450 feet, but the greater number are not deeper than this, wells being most numerous in the central and southern part of the county, where the distance to water is less.

Tulare is well adapted to the growth of the cereals, and in the production of wheat it leads all other counties in the State. A considerable amount of land is also seeded to barley and Egyptian corn every year. Other grain crops are grown, but not to any great extent. It is difficult to make an estimate of the yield of grain in the county this year, but it will exceed 7,000,000 bushels. The acreage is much larger than any previous year, and is placed at 450,000 acres. All fruits common to semi-tropical and temperate latitudes grow in some portion of Tulare County, and many of them ripen earlier than in any other part of the State. For several successive years Tulare has had the first ripe fruit in the San Francisco market. In orchards in the valleys they ripen two weeks earlier than in the famous fruit regions of the southern counties, and in the foothills a week earlier than in the valley. There is no part of the Pacific Coast, or of the continent, where a greater variety of fruits may be grown successfully. A large amount of fruit is shipped from Visalia every year to Arizona, New Mexico, and to different parts of California, and in the near future a larger amount of dried and canned fruit will be exported from the county. The fruits that do best in the valley are stone fruits, such as the peach, nectarine, apricot, plum, prune, etc. Those requiring a cooler clime grow well in the mountains. In the lower foothill region is a large area of country in which the orange, lemon, and lime grow to perfection. The first named is also grown in the valley, but not to any great extent. Other fruits that thrive and produce well in Tulare are the almond, walnut, Japanese persimmon, loquat, chirmoya, olive, pomegranate, etc. Grapes particularly grow to perfection in Tulare County, and here may be found all of the leading varieties of the continents of America and Europe. The raisin grapes of Spain find a climate here similar to their own, and the wine grapes of the countries bordering on the Mediterranean and of the more northern countries of Europe flourish and produce as well as in the climes from which they were imported.

Vine Growing

Is rapidly becoming one of the most important branches of the fruit industry. In the neighboring County of Fresno are a number of vineyards containing several hundred acres each, the product of a portion of them being used for the manufacture of wine, of others for making raisins. Small vineyards of from 10 to 20 acres are numerous, and are mainly planted to the leading raisin varieties. In Tulare County the acreage of vine land increases materially every year, and the raisins sent to the San Francisco market are pronounced to be equal to the best Malaga. Ten or 20 acres of vines in full bearing can be made to return a handsome income if properly attended, and a vineyard of this size is sufficiently large for the maintenance of a family. A small place well attended to, will produce larger crops, of better quality, and at less expense, than a larger one that requires the assistance of hired labor. A large part of the valley and foothill section is well calculated for the cultivation of the grape, and the climate is such that they may be cured to perfection in the warm and dry autumn months. The varieties usually grown for raisins are the Muscat of

Alexandria, Seedless Sultana, Raisin de Malaga, and Muscatel Romano. All of these grapes grow to perfection in Tulare County, and the reputation won by the raisins of this section of the State is causing the vineyards to grow rapidly in number and size. There is opportunity for this industry to expand indefinitely, as there are imported into the United States from Europe 2,000,000 boxes annually, whereas the product of California will not amount to more than 400,000 boxes in 1886, although this amount is much greater than that produced in any previous year. A great many varieties of table grapes introduced from all parts of Europe and America are grown. For wine making, the best varieties from all the wine making countries of the world are planted. They are allowed to bear more heavily than raisin grapes, and some kinds yield enormously. It is certain that the products of the vineyard will, in the near future, be among the leading exports of the county.

Transportation.

Tulare is favorably situated for reaching both near and distant markets. The main line of the Southern Pacific Company connects at Goshen, near the center of the valley, with a division of the Central Pacific, over which the overland trains by the Southern Pacific and Atlantic Pacific routes pass to San Francisco. At Lathrop, near the mouth of the San Joaquin Valley, the Southern Pacific connects with the Central Pacific. There are also in the county two short lines, one extending west from Goshen to the Coast Range, and another east to Visalia, the county seat. Thus Tulare is in direct communication with the markets of California, of the Southern States and Territories, and Mexico, and with the Middle States of the Union. The greater part of the grain and other heavy freight is taken direct to tide water on San Francisco Bay, over the Southern and Central Pacific Railroads. Other roads are building or projected to connect with the main line at different points. One of these will be extended from the coast through mountains west of the valley (the Coast Range) and join the southern division of the Southern Pacific somewhere in the upper end of the San Joaquin Valley, in Kern County, which adjoins Tulare. This will open another direct line to San Francisco. At least two other railroads are spoken of that will be of great importance to Tulare County.

In the way of building improvements, all parts of the county have been active. Visalia, the county seat, has added several handsome residences, and some fine brick business houses. Tulare has had a large number of buildings erected, and is growing rapidly. Traver has grown from a village to a town, and is thriving. Tipton is growing more rapidly than during any previous period. Hanford also continues to grow, and every section of the county has witnessed noteworthy improvement. No less than twenty school buildings have been erected, or enlarged, at a total cost of about $60,000, the largest being an elegant brick structure in Tulare, costing $21,000. Large grain warehouses have been erected in different railroad towns. A planing mill has been built and operated regularly at Tulare, and another sawmill in the mountains. About 20 miles of main irrigating canals have been constructed, and 100 miles of distributing ditches. A number of artesian wells in the western and southern section of the county have been bored, bringing the total number up to about 160. Tulare County was never more prosperous and never had a better outlook, and it is confidently expected that the report for 1886 will show a great advance in all particulars.

The population, from careful estimates based on the number of school children (who have increased 600 in number) is now about 17,500, an increase of over 2,000 during the twelve months. Taxable property, real and personal, has increased $1,282,442, the total valuation, exclusive of railroads, now being $10,438,991.

TUOLUMNE.

Tuolumne County is situated on the western slope of the Sierra Nevada Range of mountains, between the parallels of 37 degrees 40 minutes and 38 degrees 20 minutes. A line drawn due east from San Francisco would cross the southernmost limit of that county, and is distant from that city 150 miles; means of conveyance, 3 miles by steamer, 119 by rail, and 28 by stage. Tuolumne, strictly speaking, is a mountain county. It is bounded on the north by Alpine, east by Mono County, south by Mariposa County, and west by Stanislaus and Calaveras Counties. Its established boundary lines are of such varied angles, and so great a divergence from the four cardinal points, that the territory it embraces takes the form of an irregular polygon. Tracing its boundary lines, commencing with the eastern, at Mt. Lydell, it traverses the crest of the Sierra Mountains to Castle Peak, a distance of 40 miles; thence the northern boundary line, west 54 miles, to the north tributary of the Stanislaus River; thence its western line, 50 miles south, following the course of that stream to its junction with the main, and the main to a point 5 miles above Knight's Ferry; thence southerly 20 miles, to the Tuolumne River. Leaving this point its southern boundary corresponds nearly with the thirty-seventh parallel a distance of 60 miles east, though very irregular; thence in a southeasterly direction, 25 miles, to the place of beginning, which forms an arm extending south 20 miles, varying in width from 8 to 10 miles. The county has an area of about 2,000 square miles.

The character of the soil may be understood to be hilly and mountainous on the whole, which renders a variety of scenery, the picturesqueness of which opens up a broad field for the admirers of the grand and sublime. The soil on the hillsides, mountain slopes, and the parallel chains of small valleys along the many watercourses throughout the county, is very productive. The valleys, particularly, produce a luxuriant growth of nutritious native grasses, and, together with the rich verdure of the gentle slopes and table lands, furnishes pasturage during the summer and fall months for 150,000 head of migratory stock—horned cattle, sheep, and horses—which are driven from the lower or valley counties. This advantage, with many equally as promising, and the salubriousness of the climate, renders every condition favorable to those who seek permanent homes in the interior. The temperature is quite equable, considering the geographical bearings of the county, never falling below 20 degrees, excepting in the more elevated portions, or rising above 95 degrees F., unless exceptional seasons. Mining may be said to be the predominating interest, though many other enterprises are gradually springing up, a number of which bid fair at no distant day to assume gigantic proportions, such as the timbering, fruit, and marble interests. Slate exists in unlimited quantities, which is quite extensively used for building purposes, flagstones, etc. There are a number of plumbago mines in process of development.

Fruit and Farming.

Fruit raising, to which the soil is admirably adapted, is one of the growing interests of the county. Semi-tropical fruits of every variety and vines are cultivated, which yield abundance of highly flavored fruit. The almond and walnut are quite extensively cultivated, and with encouraging results.

Among the vines the muscat or raisin grape is coming into favor with our viniculturists. They yield largely, and the fruit is of an extraordinary size. This branch of industry, the raising of fruit, will at no distant day stand first of the productions of the soil. There is a diversified system of farming carried on, which in every particular proves profitable. There being but a small part of the arable lands under cultivation, the farm products, therefore, are equal only to the demand for home consumption.

Forest and Lumbering Interests.

The timber belt of the Sierras is about centrally located with reference to the east and western boundary lines of the county, and extends the entire breadth—is consequently 50 miles in length and 25 miles wide, of the most valuable pine, fir, and cedar timber, all of which can be made available through the V flume system of transporting lumber over an uneven country. In the western outskirts of this forest region there are four sawmills in operation during the summer months, manufacturing in the aggregate 5,000,000 feet of merchantable lumber. The lumbering interests may be said to not have a commencement, comparatively speaking, in consideration of the enormity and almost unlimited extent of the great natural resource, which is within the reach of enterprising capitalists. The exports of the county are fruit, lumber, and marble.

Tuolumne County, for the last year may be said to have "held its own." A number of people from the Eastern States and different points of this coast have settled in the county during the year, and a few old residents removed. There is no marked difference in population from what it was at the time the Government census was taken in 1880. Then the population was 7,800, now it will probably exceed 8,000. The industries of the county consist principally of mining, agriculture, and lumber. Very little change is noticeable, comparing the last with the previous year. As in all other sections of the State, the past two years here may be noted as stagnant and depressed. Yet, with all the drawbacks, the county has not gone backward, but each year brings with it an increase in the value of property. The assessment roll for 1885 shows 14,038 more acres assessed than in 1884. The assessed value of all kinds of property in 1884 was $2,378,701; in 1885 in was $2,436,322; the increased value was all on real estate and improvements. Unlike most of the mining counties, Tuolumne is entirely free from indebtedness and has ample public buildings for its requirements for many years to come. A fair extent of new land was opened to cultivation during the past year. Fruit growers and vineyardists have confidence in the future and patiently wait for the present isolation from market to be overcome by better means of transportation.

The principal towns are Sonora, Columbia, and Chinese Camp. Sonora, the county seat, is situated on the left bank of Woods Creek, in the southwestern part of the county, 8 miles from the west boundary line and 20 miles from the south line, and is a thriving town of 1,400 inhabitants. It has one foundry, in which boilers, engines, and machinery for quartz and sawmills of a first-class grade are manufactured, supplying, to a great extent, the local demand; also, two planing mills, one large fruit preserving and canning establishment in connection with an "Alden Drier," and two flouring mills. In a commercial point of view it is making rapid strides towards becoming a mountain city of considerable importance. Its mines, so far as relates to placers, may be classed with things of the eventful past, though Sonora mining district was one of the richest and most prosperous mining camps of the southern mines. There are a number of quartz mines in the vicinity in successful operation which yield largely, paying good dividends to the stockholders, and promising greater permanency, as developments made from time to time prove.

Next in size and commercial importance is the town of Columbia, 4 miles north of the county seat, which is a prosperous town of 1,125 inhabitants. The town site embraces what was originally the richest mining camp of all the southern mines. Though placers are rapidly being exhausted, it still maintains place in the list of thriving mining camps. The yearly product of the mines in the district is of no inconsiderable amount. It forms the principal source of revenue, though not entirely dependent on its mines. As it may here be remarked that many of the industrious miners in later years having turned their attention to the opening out of new enterprises, add greatly thereby to the maintenance of a floating cash capital necessary to all the requirements of local trade.

Chinese Camp, 8 miles southeasterly from the county seat, is a thrifty place of about 400 inhabitants, and is centrally located, relative to the placers embraced within the county. Its mining interest, in a local sense, is of but little importance at this late day, though in the earlier period its mines were quite extensive and extremely rich, and contributed much to the wealth and prosperity of the county. Chinese Camp, like all the large mining towns, has been compelled to seek other channels as a source of revenue other than its mines, which are in greater part or wholly exhausted of their wealth; consequently its people are engaged in a diversified system of farming, fruit raising, and the production of live stock, hogs, cattle, etc., to which every surrounding condition of climate, soil, and other advantages necessary to the success of such enterprises, is admirably adapted.

Easterly of Chinese Camp, and 15 miles from the county seat, is Big Oak Flat and the Garote districts, which embraced in their limits rich and extensive mines, which yielded immensely in early days. Farming has become the predominating interest of the people of that section of the county.

The other towns and districts are: Big Oak Flat, Jamestown, Poverty Hill, Soulsbyville, Green Springs, Rawhide, Deer Flat, Shaw's Flat, Centre Creek, Tuttletown, Summersville, Confidence, Montezuma, Don Pedro's Bar, Springfield, Algerine, Willow Springs, Moccasin Creek, Corner, Sullivan's Creek, Jacksonville, Phœnix, and Blanket Creek.

VENTURA,

Until 1872, was part of Santa Barbara, by which it is bounded on the west, with San Luis Obispo and Kern on the north, Los Angeles on the east, and the Santa Barbara Channel on the south. It partakes largely of the character of its parent county, the San Rafael Range passing through the northern portion of both, the same channel washing the southern shores of both, the Santa Inez Chain overlooking the sea in both, the mineral products, the crops, and the climate being alike in both.

The surface of the country is much broken, the mountains in the southeastern part rising to the height of 5,000 and 6,000 feet. The principal rivers are the Santa Clara, which rises in Los Angeles and runs through a broad and fertile valley in Ventura; the Buenaventura, which rises in the San Rafael Mountains and flows through the county seat, the Sespe, Mupa, and San Antonio Creeks. The Sierra de San Fernando stretches across the Los Angeles boundary of Ventura with the Santa Susana Mountains, still more completely shutting off the county of the angels. These mountains are not like some California mountains, however, bare, brown peaks, but are covered with excellent feeding grass, on which thousands of sheep and cattle are sustained. Minerals, too, are found abundantly in the hills, sulphur, gold, cinnabar, gypsum, potter's clay, heading the list. Indeed, the gold mines of Santa Feliciana are reported to have been the first ever worked on the Pacific Coast. But the principal yield of the county in this direction is that of petroleum. It has been mined and bored for with most encouraging prospects, and, although no Oil City has yet been built up, it would not surprise us if all this coast soon became the rival of the Pennsylvania oil regions. At present, much attention is being paid to petroleum, and many wells are in successful operation, and the future outlook, at the present, is very promising.

The coast of Ventura is an unbroken one, too unbroken for commercial purposes, no harbor or deep indentation being found from Rincon Point to Point Meza. But in these calm, untroubled seas, the slightest curve in the shore line is sufficient to make a landing, and so numerous wharves have been built, extending far into the quiet ocean, the principal of which are at Point Hueneme and San Buenaventura.

There are several good stage roads in the county, and the Southern Pacific Railroad passes within 10 miles of its borders. The chief town receives a daily mail, and is in telegraphic communication with the metropolis of the State.

San Buenaventura, the county seat, is built on the site of the old Mission of the same name. It lies on a slight plateau, at the embouchure of the Ventura River. The country, at the back, rises gradually, and the ocean, in front, curves slightly inward and makes the nearest approach to a harbor the county possesses. The climate resembles that of Santa Barbara, which means that it is unsurpassed by any in the world. It is the perfection of equability, the extremes of heat and cold never being felt. Flowers and fruit of all varieties grow profusely in the open air, from those of a moderate clime to the gaudy blossoms of the tropics. These add to the beauty of the place, which is further enhanced by the Ventura Avenue, a shaded drive of 3 miles long. The Santa Ana Water Company supplies the town with water in such abundance that it is used as a motive power for machinery. The county buildings are fine, and the public schools and churches are capital specimens of solid architecture.

It is a place of several manufacturing and industrial enterprises, chief among which are rock soap, mining, coal oil refining, grist and planing mills. It is quite a resort for tourists. Its climate is unsurpassed, and its healthfulness is conceded to be remarkable.

A writer in the San Francisco "Chronicle" thus further describes the country:

Southern California lays claim to being the paradise of the Pacific Coast, and Ventura County is admitted to be its fairest portion. At the last Mechanics' Fair in San Francisco she carried off the first honors for the excellence of her general products and the varied superiority of her northern and semi-tropical fruits.

The climate is the finest to be found anywhere upon the face of the globe. Sixty-five miles of seacoast form one boundary of this county, embracing two good roadsteads, yet the inland country is remarkably free from the sweeping gales and chilling winds so common in most of the coast counties. This exemption in favor of Ventura County can be accounted for only upon the hypothesis that the force and rawness of the winds are, to a great extent, broken and tempered by the interposing islands, which lie but a few miles seaward, and parallel with the shore. Ventura offers as good advantages to the home seekers as can be presented by any county in the State, for the reason that, as before stated, its climate is unexcelled; its soil produces, and is capable of producing, all products peculiar to more northern climes—such as corn, wheat, barley, oats, potatoes, beans, melons, as well as fruits of every kind and class—besides these thrive the orange, lemon, lime, pomegranate, persimmon, fig, olive, almond, walnut, and berries of almost every species.

Ventura County comprises an area of 1,296,000 acres of admirably diversified soil. It is the best watered and timbered county in Southern California. There are no uncertain land titles to inspire the purchaser with doubt and apprehension, and many of the larger grants, embracing some of the finest lands of the county, are now offered for sale in small parcels to suit purchasers, and on favorable terms. The county is rapidly gaining in population and wealth, and the area of cultivated land is gradually extending. Only 32,128 centals of wheat were exported in 1880, as against 93,406 centals in 1884. The wheat crop of 1886 is not yet reported. There were exported of barley in 1880, 240,816 centals, and in 1884, 293,066 centals. Corn grows well in this county, and the yield is frequently enormous. The assessment roll of 1885 foots up a total valuation of $4,674,208. The climate is exceedingly healthful and invigorating, and the most equable on the coast. The one thing needed in Ventura County is a railroad, and when that comes a boom is assured the like of which has not been experienced in the valley or on the coast of California for years.

Goodall, Perkins & Co.'s steamers touch here regularly, it being 308 miles by water from San Francisco. Inland communication is maintained by staging 50 miles to connect with the Southern Pacific Railroad at Newhall, a station 9 miles north of San Fernando and 208 miles south of San Francisco.

The trade of the town consists in the exportation of wheat, fruit, asphaltum, petroleum, and wool.

Hueneme lies 12 miles southeast of San Buenaventura. The southern entrance to the Santa Barbara Channel is formed here by Point Conversion and Hueneme and the island of Anacapa. "At the Point," says a writer, "is a singularly located and formed harbor, a deep submarine valley being close to the shore, while the landing is exposed to the winds and waves of the Pacific, which fortunately, are ever gentle." So gentle is the ocean that a wharf stretches 1,200 feet into it, at which the vessels and steamers lie in safety. The productive soil of a large stretch of coast contributes to the trade of Hueneme, as well as the rich Santa Clara River Valley, and so important has Hueneme become, as a shipping point, that a lighthouse has been put up by the Government. Fresh water is obtained by artesian wells, bored within a short distance of the sea.

Nordhoff, named after the well known writer, is situated 12 miles north of San Buenaventura, and 30 miles east of Santa Barbara. A fruitful soil and interesting scenery surround the little town, and the celebrated Ojai Springs lie but 5 miles distant.

The county also claims the Islands of Anacapa and San Nicholas.

The other towns are Briggs, Mound, San Pedro, Live Oak, Santa Paula, Sesipe, Ojai, West Sesipe, Ocean, Saticoy, Pleasant Valley, and Conejo.

YOLO.

Lying north of Solano, west of Sacramento, east of Napa and Lake, and south of Colusa, is the County of Yolo. As early as 1842, Captain William Gordon settled in the vicinity of Cache Creek, and a few years later began to farm there on a small scale. After the gold discovery brought so many pioneers to the State, the valuable farming lands in Yolo were rapidly taken up, and as years passed on the county developed into one of the leading grain producing districts of the State.

Fruit, Raisin Making, Etc.

The soil is a rich alluvial, and—notwithstanding the persistency with which yearly crops have been raised thereon—it has rarely failed to produce fairly, even in the most untoward seasons. Of late years much attention has been given to fruit growing and raisin making, in both of which branches of industry, Yolo County has made wonderful advancement. In the vicinity of Woodland, Davisville, and Winters, the soil has proved to be best suited to the production of raisin grapes and the larger fruits, and in these localities extensive orchards and vineyards have sprung up. It was claimed, some four years ago, that the yield of raisins by the Briggs vineyard of 300 acres, near Davisville, brought not less than $100,000. In the same vicinity are the extensive orchard and vineyard of the Oak Shade Fruit Company, which cover 350 acres and contain 22,512 trees and 25,760 vines. Of the fruit trees, 11,126 are pear, 5,200 almond, 1,423 apricot, 2,754 plum, 1,502 peach, 383 nectarine, 98 black walnut, and 26 cherry. These are now bearing trees, while a number of younger trees have been added of late. This famous orchard is the property of a company composed of citizens of San Francisco, Sacramento, and Yolo. Like Solano, land in the Yolo orchard and vineyard districts has reached a very high valuation, ranging all the way from $50 to $75 for wheat land, to $300 for choice orchard or vineyard. Such high prices are, of course, more or less a bar to settlement by persons of ordinary or small means, but to those having capital for investment in profitable farming property, Yolo County offers excellent opportunities.

Other Industries.

In some parts of the county irrigation is resorted to to a limited extent, and the owners of water privileges find their investments profitable. Alfalfa is said to be a very productive crop, and one that yields handsome returns. Stock raising and dairying are also carried on to a considerable extent, but are being yearly encroached upon by agriculture and horticulture. Yolo County, like Sacramento, has a large extent of tule, or marsh lands, which in the course of time will doubtless be reclaimed and cultivated.

As sufficient evidence of the prosperity of the county it may be noted that property values have increased as follows: Real estate, $216,639; improvements on same, $48,781; town lots, $95,268; improvements on same, $110,351; in coin, $331,374; total increase in value over last year, $802,413. The assessed value of property in this county is $16,768,405, on which there are mortgages amounting to $2,236,767, or $51,011 more than last year, which gives us a net increase of $751,402 for this season. Building has been brisk the entire season, and many substantial buildings have been erected on town and farm property. The increase of population has been comparatively small, except in Woodland, which has probably gained 500 during the year.

Winters, the town next in size to Woodland, has made considerable progress in building, and has recently established a bank, and no doubt will soon put on the garb of a young city. It is the present terminus of the Vacaville and Clear Lake Railroad. Its natural resources and advantages are as good as in any part of Yolo County, and is destined in a few years to be quite a large town. Other towns throughout the county are showing signs of improvement, but do not grow as rapidly as Woodland.

The season of 1886 promises to be more prosperous than that of 1885, a larger area having been sown than in any previous season since the settlement of Yolo.

A correct idea of the building and improvements made in Yolo County for the year 1885 may be gathered from the following summary, kept and furnished to the "Chronicle" by Gilbert & Son, of Woodland: In the City of Woodland the number of frame buildings erected was 105, value $246,500; of brick, 18, value $81,500; of alterations and improvements, 21, value $26,300—making a total sum invested in this way of $354,300. In Yolo County (outside of and not including Woodland) the number of frame buildings erected for the year was 67, value $134,775; of brick, 13, value $62,000—making a total sum expended of $196,755. If 10 per cent be added to the total sum expended in the city and county, viz., $551,075, for buildings which did not reach $1,000 in value, and for minor improvements, and neither of which are included in the above calculation, the aggregate capital invested in that line for the year will be found to be, as nearly as possible, $606,182 50, giving an increase over the sum expended in the preceding year of $251,628.

Taxable Wealth in 1885.

Real estate and improvements	$16,846,349
Head of cattle	9,794
Tons of hops	22,000
Acres in wheat	145,000
Acres in barley	5,000
Number of hogs	17,345
Number of horses and mules	7,240
Number of sheep	41,297
Acres in vines	2,746
Gallons of wine made	150,000
Boxes of raisins	15,000

YUBA.

Yuba County lies directly northeast from and adjoins Sutter County. Its area is 617 square miles, or 395,000 acres. It lies on the eastern side of the Sacramento, and embraces a considerable portion of the foothills on the western slope of the Sierra Nevada. These foothills, which were once the home of many thousand miners, are now being settled and cultivated by agriculturists, who find the soil well suited to a variety of crops. The western portion of the county lies in the valley proper, where the land is of the most fertile character.

Water Courses.

The Feather River, a navigable stream for some miles above Marysville, courses on the western side of the county, and Bear River, a turbulent mountain stream, runs along the lower line of the county, both of which join the Sacramento. The Yuba, which rises in the heart of the Sierra, courses through the county in a westerly direction, and joins the Feather at the point where the City of Marysville is located. All these streams have tributaries of considerable size, showing that the water supply of the county is well distributed.

Climate and Temperature.

Like other portions of the Sacramento Valley, Yuba is blessed with a climate that may, without exaggeration, be called "glorious." While the midsummer heat is often quite severe in the daytime for brief spells, the nights are always comfortably cool. Flowers bloom nearly every month in the year, while in the same latitude on the eastern side of the continent, the winters are often excessively cold, and the summers unbearably hot. Statistics running back 30 years show the mean annual temperature for Yuba to be 60 degrees. For the spring and summer months it is 50.5 degrees, for the summer 71.8 degrees, for autumn 61.60 degrees, and for winter 49.2 degrees. This average of temperature is not excelled in any other part of the United States or Europe. High winds or hurricanes are unknown in that section, as indeed is the case almost generally throughout the northern interior of California. The advantages of climate of this character over that of sections where the winters are of five or six months' duration, can hardly be estimated from an economic point of view, and are appreciated only by those who have experienced both. Here live stock require no particular care in winter, and the saving in the one item of fuel alone is an important consideration to families. Outdoor labor is scarcely interrupted throughout the entire year, which means a great deal to the class who depend on their labor alone for their livelihood. Who can say that life is not incomparably easier and more replete with comfort and happiness under the sunny skies of the Sacramento Valley than in those parts of the East and North where the people are virtually housed for nearly one half the year.

Rainfall.

The average annual rainfall for Yuba County is 22 inches. For the winter months, 12.1 inches; for the spring months, 5.15 inches; for the summer months, .15 inch; and for the autumn months, 4.6 inches. The lowest temperature on record, for Marysville, is 26 degrees above zero, and the highest—where the test was fair—100 degrees.

Lumber and Fuel.

The eastern portion of the county is quite heavily timbered with spruce, fir, and pine. The valley portion is generously dotted with oaks, while the watercourses are bordered with a variety of trees of smaller growth. Lumber and fuel are consequently both abundant and cheap.

Soil and Products.

Along the streams the soil is of vegetable mold. On the higher plains it contains sand, clay, lime, iron, and various saline and alkaline matters. Fertility is not its only claim upon the attention of the agriculturist, for it possesses qualities of an enduring character. Created by long continued washings from the mountains above, it has great depth and richness. The soil of the foothills is different, and is specially adapted to horticulture, grape culture especially.

The products of the soil embrace all the usual semi-tropical grains, fruits, etc. The average yield of wheat is 18 bushels to the acre, and of barley, 22 bushels. Apples, peaches, pears, plums, apricots, cherries, nectarines, etc., are successfully grown in all parts of the county, as well as the smaller fruits and berries. The orange, lemon, olive, fig, and almond are grown without special care or effort, while wine, table, and raisin grapes of the choicest varieties yield abundantly. As high as $75 to $125 profit per acre has often been realized from vineyards of Muscat, Muscatel, and other choice varieties. With all these advantages and inducements for people to engage in fruit and grape culture, scarcely more than one eighth of the land in the county have ever been cultivated. Here, surely, is something for the immigrant and the struggling farmer of the East to reflect upon.

Stock Raising.

Considerable attention is also paid to the breeding and raising of fine horses, cattle, and sheep in the foothill section of Yuba, for which industry it is well adapted.

Building Material

Is as cheap in Yuba as anywhere in the interior of the State. Bricks are made in large quantities, the hills abound in lime quarries. and the local forests and mills supply the best of lumber. The roads throughout the county are good, and the rates of freighting by wagons very reasonable.

Transportation.

The California and Oregon Railroad passes through the southwestern portion of the county, on which line there are four depots within a space of 25 miles. The California Northern Railway runs from Marysville to Oroville, Butte county, which is a great advantage to the section between these points. It is expected that this road will ultimately be extended northeastward into the Plumas and Lassen country. The facilities for river transportation are excellent and the rates low. A line of steamers and barges is maintained by local capitalists between Marysville and San Francisco throughout the year.

Local Industries.

Considerable progress has been made by manufactories in Yuba. There are foundries and machine shops, wagon and furniture factories, one of the largest flouring mills in the State, etc., while the mercantile trade of the City of Marysville amounts to some $10,000,000 per year. There are several banking houses in the county, and the rates of interest are as low as anywhere in the State.

Schools, Etc.

The county is well supplied with schools and efficient teachers. The people of Yuba—as of most California communities—take a deep interest in the welfare of the public schools. The course of study in the Marysville schools embraces the fitting of pupils for the State University. The several religious denominations are well represented throughout the county, Marysville alone having seven church edifices.

The City of Marysville is situated at the head of navigation on the Feather River, and has a population of about 6,000. The California and Oregon Railway passes through the place, and it is the southern terminus of the California Northern Railway. It has, therefore, the best of facilities for cheap and immediate transportation. The Central Pacific Railroad Company built a new passenger depot during the summer, which adds materially to the convenience and beauty of the locality. The levees about the city were strengthened throughout their entire length, and are now

8 feet above the highest water mark ever known and protect the city, it is confidently believed, against any possible flood. In fact, the security is the cause of the general improvement boom, the influence of which has been felt by all classes. Every available dwelling house in the place is occupied, and the demand is causing the erection of many new ones, all of which are eagerly sought for by tenants and engaged before being finished. The industries of the place—woolen mills, flour mills, foundries, machine shops, planing mills, carriage manufactories, etc.—are all running with full force and much business activity. The Buckeye Flouring Mills alone turn out 600 barrels of flour daily. The pork packing establishments of the place will put up over 5,000 hogs this season. Marysville has two daily papers, the "Appeal" being one of the oldest journals in the State.

Since the cessation of hydraulic mining in the county, attention is being directed to other and more legitimate channels of industry in the mining regions. The long neglected quartz interests are now pushing along with vigor. Four lodes are being opened within a radius of 18 miles of this city, and prospecting is increasing. The lodes give promise of substantial and permanent results. Schemes are on foot to utilize the great water power now running to waste from the hydraulic mining canals. Irrigating canals are projected which when finished will open up vast tracts of foothill lands capable of raising the finest fruits, cereals, and grasses. The success of the Bonanza ranch, in the rolling country below Smartsville, which was once a barren waste, but which is now a veritable paradise, made so by irrigation, has stimulated other and similar enterprises, and the result is that every foot of the vast rolling plain in that locality, amounting to thousands of acres, has been located and fenced and only awaits the advent of the proposed canal to be made to blossom as the rose. The Northern California Immigration Association, with an auxiliary branch in this city, is doing much toward the future development of this section. Already a flourishing colony exists in the foothills to the north of the city about 18 miles. Large farmers are beginning to see the advisability of dividing their lands into smaller farms. The prosperity of the farming community is proverbial. All over the face of the country is dotted with costly and elegant farm houses and outbuildings, and almost every farmer is provided with carriages and fine teams for his convenience and enjoyment. Within the City of Marysville are two large and several minor hardware establishments, where the farming community obtain everything they need in their line.

Camptonville, a mining town, lies 45 miles northeast of Marysville, on Oregon Creek, a branch of the Middle Yuba River. It is on the stage road leading from the Central Pacific Railroad at Colfax, through Nevada and North San Juan to Downieville. It is also connected by stage with Marysville. Extensive gravel ranges are in the vicinity, honeycombed by hydraulic mining.

Smartsville is another mining town, 18 miles east of Marysville, on the south branch of the Yuba River. It is reached by stage from Marysville and North San Juan. The foothills of the Sierras are all around, most of them covered with a heavy deposit of auriferous gravel.

Wheatland is an agricultural town and prospering. It lies 13 miles southeast of Marysville, on the line of the California and Oregon Railroad, 39½ miles from Sacramento, and 179 miles from San Francisco. The town was laid out in 1866 on the high ground north of Bear River, in the midst of a fine farming district. It has mills, churches, and warehouses, a bank, school houses, a newspaper, and, although there is not a mining ditch for miles, Wheatland is going ahead.

The other towns and villages of Yuba are: Bald Mountain, Bear River, Brophy's, Brown's Valley, Buckeye, Clark, Cordua, Dobbin's Ranch, Elizabeth, Greenville, Hansonville, Honcut, Indian Ranch, Junction, Linda, Long Bar, Lone Tree, McDonald's, Mill Creek, New York, Oak Valley, Oregon House, Peoria, Plumas, Prairie House, Reed's, Rose's Bar, Sharon Valley, Strawberry Valley, Slate Range, Spring Valley, Virginia, and Yuba.

Taxable Wealth in 1885.

Real estate and improvements	$5,659,345
Head of cattle	7,938
Head of hogs	6,701
Head of horses	4,536
Head of mules	261
Head of sheep	56,674
Miles of water ditches	202
Acres in wheat	29,805
Acres in barley	10,660
Acres in oats	1,550
Acres in vines	250
Gallons of wine made	30,000
Grapes sold for market, pounds	180,000

CHAPTER IX.

INVESTIGATIONS.

During the session of the Twenty-sixth Legislature a resolution was adopted by the Senate, directing this office to make "an inquiry as to the condition of the laborers employed by the contractors on the seawall at San Francisco."

Said direction was carried out, and a full investigation had, which was duly reported to your Excellency, the following being a copy of such report, viz.:

REPORT.

Office of the California State Bureau of Labor Statistics,
Corner Geary and Dupont Streets,
San Francisco, February 18, 1886.

To his Excellency Hon. George Stoneman, *Governor of the State of California:*

Sir: During the twenty-sixth session of the California Legislature a resolution was introduced in the Senate, by Senator John M. Days, and referred to the Committee on Labor and Capital.

The resolution, and all proceedings had thereupon by the committee, and the report, together with the recommendation of said committee, is as follows, viz.:

Senate Chamber,
Sacramento, March 3, 1885.

Mr. President: Your Committee on Labor and Capital, to whom was referred the following resolution:

"Whereas, Charges having been made that certain officials and contractors employed by the State Board of Harbor Commissioners, and engaged in the construction of the seawall at San Francisco, are violating the eight-hour law of the State, intimidating their employés, and compelling them to patronize boarding-houses in which said contractors are interested, and otherwise setting the laws of the State at defiance; also, that said contractors are not executing their contracts as required by their specifications; therefore,

"*Resolved*, That the Committee on Capital and Labor be and they are hereby instructed to investigate these charges, and such others as may be preferred by the workingmen and property owners against the said seawall contractors, and report to this Senate, and for this purpose said committee is empowered to send for persons and papers."

Beg leave to report that they have heard the testimony of the contractor for constructing section four of the seawall at San Francisco, in relation to the matters therein contained. He states that the workingmen in his employ are required to render ten hours service each day; but as the work is being done under contract, and not directly for the State, he claims that the eight-hour law does not apply; that he has not, nor has any one in his employ, intimidated workingmen into patronizing any boarding-house in which he is interested, and that, in fact, he is not interested in any boarding-house where workingmen reside.

Your committee is of the opinion that an inquiry should be made into the reason why contracts are let by the Board of State Harbor Commissioners to build the seawall by the weight of rock dumped into excavations instead of by measurement; also, why the work is not performed directly by the State and the laborers employed by the State Board of Harbor Commissioners; why, if it is necessary to let the work out by contract, the constitutional provisions of the eight-hour law are not made a part of the contract; why employment is not given to citizens in preference to aliens, and the lowest prices paid anywhere to labor are paid to the laborers engaged on State work.

Your committee, however, is further of the opinion that any investigation herein must take place in San Francisco, and, owing to the shortness of a legislative session, it would consume too much of our time from other legislative duties to properly attend thereto. We, therefore, recommend the adoption of the following resolution:

Resolved, That the Commissioner of the Bureau of Labor Statistics be and he is hereby requested to inquire into the condition of the laborers employed by the contractors on the seawall at San Francisco, with reference to whether what is known as the "truck" system is in vogue there; whether or not the eight-hour law (article twenty, section seventeen, State Constitution), applies to contracts let by the State, and whether or not such laborers are interfered with in the exercise of the elective franchise, and with reference to such other matters as may affect them and other laborers employed by the State Board of Harbor Commissioners, and all the suggestions set out in this report, and report the same to the Governor at as early a date as is consistent with a thorough investigation thereof.

DOUGHERTY, Chairman.

On motion of Mr. Days, the resolution was adopted.

In compliance with said resolution and report, a thorough and complete investigation has been had, and I herewith submit to you the report of the same, together with such recommendations and suggestions as I have to make in relation thereto.

The investigation was commenced on or about the twentieth day of May, 1885, and continued from time to time, and was attended by ex-Governor William Irwin, the President of the Board of State Harbor Commissioners, the contractors having the contracts for building sections five and six of the seawall, the employés, laborers, and other persons connected with the work, and also the property owners, whose property it is alleged and claimed has been impaired and damaged by the actions and operations of the contractors while performing the said work upon the seawall.

Hon. John M. Days, a member of the Senate at the session in which the resolution was adopted, attended the investigation and examined witnesses, as did also representatives of the various labor organizations in the State. Several laborers and mechanics were also present.

The fullest latitude of examination and investigation was permitted.

Section five of the seawall was built and constructed under and by virtue of a contract dated the twentieth day of February, A. D. 1884, of which the following is a copy, viz.:

CONTRACT.

Agreement made and entered into this twentieth day of February, A. D. 1884, by and between the Board of State Harbor Commissioners, party of the first part, and W. D. English, party of the second part.

Witnesseth, that the party of the second part hereby covenants and agrees with the party of the first part to furnish labor and materials and to do the following work, to wit: the construction of section five of the seawall and thoroughfare and wharf along the waterfront line of the City and County of San Francisco, State of California.

The said work to be commenced within forty-five (45) days from above date, and the embankments must be completed to grade within twelve (12) months from above date; all work to be done in a good and workmanlike manner to the satisfaction and under the direction of the Engineer of the Board, and in accordance with the plans in the office of the Board and the specifications hereto annexed, and hereby made part of this agreement. And the Board or its Engineers may at any time during the progress of the work reject any part thereof and require conformity with such plans and specifications.

In case of any differences as to the intent and meaning of the plans and specifications, or as to the character of the materials or work, or as to the estimates and measurements of such materials, the same shall be decided by the Engineer of the Board, and his decision shall be final.

The work shall be done with the least possible interference with the use of the adjacent slips and wharves.

This contract is not assignable without the written consent of the party of the first part.

And the party of the first part covenants and agrees with the party of the second part to pay for the said work by drafts drawn on the San Francisco Harbor Improvement Fund, in gold and silver coin of the United States, in manner following, viz.: Upon monthly estimates of the value of the materials used and work performed, to the extent of 75 per cent of such values; said estimates to be made in writing by the Chief Engineer of the Board, and the first payment of 25 per cent when the work is completed and accepted by the Board, at the following rates, viz.: The stone embankment, at fifty-two (52) cents per ton of two thousand two hundred and forty (2,240) pounds; the earth embankment at twenty-nine (29) cents per cubic yard (determined in the vehicle of transportation): the wharf (furnishing the materials and doing the work), twenty-nine thousand ($29,000) dollars.

Subject to a deduction of one hundred ($100) dollars per day for each and every day that the completion of the embankment to grade is delayed beyond the twentieth day of February, A. D. 1885, as liquidated damages.

But no interest shall be payable on any moneys to become due under the agreement, although the same be not paid when due.

And it is expressly stipulated that eight hours of labor shall be a legal day's work under this agreement, and all the provisions of Chapter X, Title VII, of the Political Code, applicable thereto, are to be determined as incorporated herein.

No Chinese or Mongolian labor shall be employed on the work, under penalty of forfeiture of the contract at the option of the Commissioners.

In witness whereof, the said Commissioners have hereunto set their hands and the official seal of the Board, attested by the signature of their Secretary, and the party of the second part has set his hand, the day and year first above written.

Signed:

WILLIAM IRWIN,
A. C. PAULSELL,
JOHN H. WISE,
State Harbor Commissioners.

Signed:
JAS. C. L. WADSWORTH,
Secretary.

[SEAL HARBOR COMMISSIONERS.]

Signed:

GEORGE STONEMAN,
Governor of California.

Signed:

WASHINGTON BARTLETT,
Mayor of the City and County of San Francisco.

Signed:

WM. D. ENGLISH.

BOND.

Know all men by these presents, that we, Wm. D. English, as principal, and George Hearst, of the City and County of San Francisco, and C. W. Yolland, of the City of Stockton, San Joaquin County, and J. C. Smith, of the City of Oakland, County of Alameda, as sureties, are jointly and severally held and firmly bound unto the Board of State Harbor Commissioners in the sum of fifty thousand ($50,000) dollars in gold coin of the United States, as follows, to wit:

The said W. D. English, as principal, in the full sum of fifty thousand ($50,000) dollars, jointly and severally with the said sureties, and the said George Hearst, jointly and severally, in the sum of twenty thousand ($20,000) dollars, and the said C. W. Yolland, jointly and severally, in the sum of twenty thousand ($20,000) dollars, and the said J. C. Smith, jointly and severally, in the sum of ten thousand ($10,000) dollars, for the payment of which sums, well and truly to be made, we bind ourselves, our heirs, executors, and administrators, jointly and severally, firmly by these presents.

Sealed with our seals, and dated this twentieth day of February, A. D. 1885.

The conditions of the foregoing obligations are such, that, whereas, the above bounden W. D. English has this day entered into a contract with the Board of State Harbor Commissioners, to do and perform certain work, and other matters and things, in and about the property of the State of California, in the Harbor of San Francisco, under the control of said Board, as will more fully and particularly appear, by reference to said contract and specifications attached thereto, which are hereto annexed and made part hereof. Now, therefore, if the said W. D. English shall, in all things, well and faithfully perform and complete said contract according to the true intent and meaning thereof, and to the satisfaction of said Board of State Harbor Commissioners, and turn the same over to said Board free from all claims and demands, liens, or charges for mechanics, material men, laborers, or from any other cause or causes whatsoever, then this obligation to become null and void; otherwise to remain in full force and effect.

Given under our hands and seal, at the City and County of San Francisco, the day and date above written.

WM. D. ENGLISH. [SEAL.]
GEORGE HEARST. [SEAL.]
C. W. YOLLAND. [SEAL.]
J. C. SMITH. [SEAL.]

Approved this twenty-fifth day of February, A. D. 1884.

WILLIAM IRWIN,
A. C. PAULSELL,
JOHN H. WISE,
State Harbor Commissioners.
GEORGE STONEMAN,
Governor of California.
WASHINGTON BARTLETT,
Mayor of the City and County of San Francisco.

STATE OF CALIFORNIA, CITY AND COUNTY OF SAN FRANCISCO, ss.

On the twenty-fifth day of February, A. D. one thousand eight hundred and eighty-four, before me, William S. Campbell, a Notary Public in and for the said city and county, duly commissioned and sworn, personally appeared W. D. English, George Hearst, Charles W. Yolland, and J. C. Smith, known to me to be the persons named and described in, and whose names are subscribed to the within instrument, and they severally acknowledged to me that they executed the same.

In witness whereof, I have hereunto set my hand and affixed my official seal, at San Francisco, the day and year in this certificate first above written.

[SEAL.]

WILLIAM S. CAMPBELL,
Notary Public.

SPECIFICATIONS

For Section Five of the Seawall and Thoroughfare and Wharf on the Waterfront of the City and County of San Francisco.

LOCATION OF THE STRUCTURE.

This structure will be located on the waterfront line of the City and County of San Francisco, commencing at the southerly end of Section 4, and extending along the said waterfront line southerly, with a surface width of two hundred (200) feet, for a distance of one thousand (1,000) feet. This location is definitely shown on sheet one of the official plans; these plans are marked

"OFFICIAL PLANS OF SECTION FIVE OF THE SEAWALL OF SAN FRANCISCO, JANUARY, 1884,"

And are hereby made part of these specifications, and all alignments, dimensions, materials, and other data marked or described thereon, are deemed incorporated herein.

WORK TO BE DONE.

The work to be done under these specifications consists in *furnishing all materials* and *erecting* a *stone* embankment, an *earth* embankment, and a *wharf*.

The stone embankment will contain about 216,000 tons of stone; the earth embankment about 285,000 cubic yards of broken stone, sand, or other suitable material; and the wharf will contain 501,320 feet b. m. of timber, and 802 piles, together with the requisite quantity of cast-iron mooring bits, wrought-iron spikes, bolts, etc.

THE STONE EMBANKMENT.

The stone embankment must be built entirely of stone not subject to decomposition or disintegration by the action of sea water or air.

The slopes and dimensions must be as shown on the plans heretofore alluded to.

Two classes of stone will be recognized.

The first class will include stone of one or more cubic feet, in a fair assortment of sizes between one and four cubic feet; no objection will be made to stone larger than four cubic feet.

The second class will include stone of less than one cubic foot, in assorted sizes; but no stone less than ten pounds weight will be accepted at the quarry.

The Board will assume the risk of breakage in transportation. Only stone of the first class must be used in the construction of the outer ten feet of the one on one slope, and in the one on three slope, as shown on the plans. On this latter slope this stone must be closely and carefully hand laid to the depth of four feet, and so that the greatest dimension of each stone will be at right angles to the slope. Stone of either class may be used in the body of the stone embankment. The stone when not laid as herein prescribed must be dumped from scows, cars, carts, or other vehicle, as the contrator may elect.

EARTH EMBANKMENT.

The earth embankment must be built of sand, broken stone, dry earth, gravel, or a mixture of these. Clay, mud, or other unsuitable material, will not be allowed. The earth embankment is to be built back of and parallel to the stone embankment, and must have the slopes and dimensions shown on the official plans. The top of the earth embankment, to a depth of two (2) feet, must consist of broken stone or clean gravel; the stone must be smaller than twenty-seven cubic inches each, and of the same quality as required for the stone embankment. The southern end of the earth embankment must be protected from wave action by a layer of stone of the second class. This layer must extend across the end of the embankment, and be ten (10) feet thick on the top, with the natural slope of the stone. This stone is to be measured as *earth*, together with the layer of broken stone.

The earth embankment is estimated by the Chief Engineer to require 285,000 cubic yards. The contractor must give the Chief Engineer every facility for determining the quantity of material used, and to this end the vehicles used in transportation must be, as far as practicable, of uniform size and shape, and uniformly filled; and the said Engineer will have the authority to prescribe and enforce such regulations as may appear to him advisable for the proper measurement of the material.

The method of ascertaining the amount of material used in the earth embankment shall be determined by the Chief Engineer, under the direction of the Board; the Board reserving the right of changing the method, from time to time, as they may see fit.

GENERAL METHOD OF CONSTRUCTION.

The general method of construction is to be as follows:

The space under the stone embankment will be dredged to the proper depth by the Board of State Harbor Commissioners. Commencing at the southerly end of Section 4, and proceeding regularly southward, the stone must be properly deposited into the dredged space. The dump lines, laid out by the Chief Engineer, must be carefully followed, and any stone dumped beyond the easterly dump lines must be removed by the contractor without expense to the Board; and any dumped beyond the westerly or inner dump line, will be deducted from the stone embankment and classified as earth embankment.

In case it is found more convenient to the contractor, during the progress of the work, to cover up any portion or portions of the one on three slope, such portion or portions must be subsequently uncovered to the proper depth, and then hand laid, as heretofore prescribed.

The stone embankment must be kept at least two hundred and fifty (250) feet in advance of the earth embankment, and should the Chief Engineer find that a greater distance would be better, the contractor must increase such distance as the said Engineer shall direct.

The dumping of material for the earth embankment must be done along such lines and to such extents as the Chief Engineer shall direct.

All work must be done under the supervision, and to the satisfaction of the Chief Engineer of the Board; and all questions and disputes with regard to the intent and interpretation of these specifications, and the estimates and measurements of materials and work, shall be referred to him, and his decision thereon shall be final.

Should further detail or explanations be required, or should exigencies not now definitely foreseen arise, the contractor must apply in writing to the Chief Engineer, who must give written instructions regarding such details or exigencies, which instructions must be complied with by the contractor. When the stone embankment settles it must be at once raised to the proper grade.

THE WHARF.

The wharf will extend along the front of the rock embankment with a width of sixty feet, and a length of one thousand feet, as shown on the official plans. All materials will be subjected to a rigid examination, and if defective, under size, or otherwise unsuitable, will be condemned, and must be immediately removed from the work.

MATERIAL.—There will be required for this work 802 piles and 501,320 feet b. m. of timber.

PILES.—Standard, 700; 70 feet long. Fender, 100; 50 feet long.

Bill of lumber:

Caps, 12″x12″	74,400 feet b. m.
Sub-caps, 12″x12″	14,880 feet b. m.
Stringers, 12″x12″	6,048 feet b. m.
Stringers, 10″x12″	40,000 feet b. m.
Chocks, 8″x12″	5,264 feet b. m.
Curbs, 8″x10″	5,467 feet b. m.
Planking, 4″x12″	240,000 feet b. m.
Stringers, 4″x12″	115,128 feet b. m.
Raising blocks, 2″x10″	133 feet b. m.
Total	501,320 feet b. m.

The diameter of the piles at the larger end, clear of bark, must not be less than as follows:

For standard piles, twelve (12) inches; for fender piles, fourteen (14) inches.

No standard pile will be accepted unless entirely covered by the bark after being driven, and any pile which may have been injured in driving, so as to impair the bearings, must be drawn up and removed.

The standard piles must be driven as shown on the plans, and sawed off nine (9) feet eight (8) inches above the mean of low water, as established by the United States Coast Survey, unless otherwise shown on the plans.

The fender piles must be driven as shown on the plans; they must be sized on the outside stringer to fourteen (14) inches, driven in a true line, and fastened to the outside stringers or end caps, with screwbolts thirty-one inches long, one (1) inch in diameter, and countersunk two (2) inches into the pile.

TIMBER.

Caps must be twelve (12) inches square, and fastened to each pile with driftbolts twenty-two (22) inches long and one (1) inch in diameter. All joints in the caps must be secured with two (2) wrought iron dogs of one inch round iron, thirty-two (32) inches long, and twenty-four (24) inches between the jaws. The ends of each cap must be bolted to the piles as above specified, and jointed within not more than one (1) inch of the center of the pile.

STRINGERS.

Stringers must be of the dimensions and in the positions shown on the plans.

The outside stringers must be composed of two (2) ten by twelve (10x12) inch timbers, in pieces not less than forty (40) feet in length, and laid so as to break joints. Each timber to be bolted to each cap with driftbolts one (1) inch in diameter and twenty-two (22) inches long, and the two timbers must be bolted together with screwbolts, three fourths ($\frac{3}{4}$) of an inch in diameter, midway between each bent.

The inside stringers at the junction of sections of planking must be of ten by twelve (10x12) inch timber, and must be bolted to each cap with one (1) inch bolts twenty-two (22) inches long.

All other inside stringers must be four by twelve (4x12) inch timbers, placed at an average distance between centers of two (2) feet, and laid in such lengths as to have bearings on the full width of each cap. They must be bolted to each cap with bolts five eighths ($\frac{5}{8}$) of an inch in diameter, headed and pointed.

PLANKING.

The planking must be of four by twelve (4x12) inch timber, laid in two sections of twenty-eight (28) and thirty-two (32) feet width respectively, as shown on the plans. Each plank must be spiked to every stringer under it with one spike, and both ends must be fastened with two spikes; the spikes must be 8″ cut spikes. The planking when laid must have a uniform surface, and any irregularity in sawing the timber must be worked off from beneath. All joints must be squared accurately and closely fitted and lined in a neat and workmanlike manner.

CHOCKS.

Chocks of eight by twelve (8x12) inch timber must be placed between all fender piles, and let in two (2) inches into each pile. They must be fastened to the outside stringer with one (1) inch driftbolt twenty (20) inches long, placed not more than four feet apart. Each short chock between double fenders must be fastened with one such bolt.

CURBS.

Curbs of eight by ten (8x10) inch timber must be laid along the waterfront line, as shown on the plans. They must be raised by strips of two by ten (2x10) inch plank one (1) foot long, placed ten (10) feet apart, and must be fastened down with inch driftbolts eighteen (18) inches long, passing through each strip.

STRINGERS FOR MOORING BITS.

The stringers for mooring bits must be placed and fastened as shown on the plans, and the mooring bits fastened thereto, as hereinafter described. Two (2) twelve by twelve (12x12) inch stringers twelve (12) feet long, must be placed under each bit and cross adjacent caps. These stringers must be fastened to the caps with four (4) one and one half ($1\frac{1}{2}$) inches screwbolts; across the ends of the bolts must be placed wrought iron plates $\frac{1}{2}$″x5″x20″; the upper plates must be let in flush with the top of the stringers, and the flooring countersunk on the under side to receive the heads of the bolts.

CONNECTING LINES WITH OLD WHARVES.

Sub-caps must be placed along the lines of junction of the new seawall wharf with Union, Green, and Vallejo Street Wharves, as shown on the plans.

All timber used must be of the best quality yellow fir.

MOORING BITS.

Cast-iron mooring bits of the best quality of iron and "smooth cast" must be furnished by the contractor, and placed as shown on the plans. They must stand on the top of the planking and be bolted to the stringers with four (4) $1\frac{1}{2}$-inch screwbolts; across the end of the bolts must be placed two (2) wrought-iron plate washers $\frac{1}{2}$″x5″x20″. All iron work connected with the bits must be painted with two (2) coats of "red mineral paint" mixed with pure boiled linseed oil, and put on after the iron has been inspected and accepted.

All screwbolts provided for in these specifications must have wrought-iron washers of standard dimensions at each end.

CONDITIONS.

The contractor must commence the work within forty-five (45) days after the award of the contract; and the embankments must be completed to grade within twelve (12) months after the award of the contract.

The contractor will be required to pay to the Board one hundred dollars ($100) per day for each and every day that the completion of this work may be delayed beyond the prescribed time.

The contractor must abide by and comply with the obvious intent and meaning of these specifications, which must be construed to include all measures, materials, and modes of work necessary to complete the structures herein specified, in a thorough and workmanlike manner.

The contractor must not sublet, nor transfer his contract, nor any part of it, without the written consent of the Board.

The Board shall have the right to use all portions of the embankments, upon being brought to grade, and to use every section of the wharf upon its completion, without being deemed to have accepted the same.

Each bidder must state in his proposal the quarry, or exact locality, from which he will obtain his rock, and must submit with his proposal about a twenty-five (25) pound specimen of the rock which he intends to use, duly labeled with his name and the locality from which it was obtained; and must be prepared to deliver stone in all respects equal to the specimen submitted. If, in the opinion of the Chief Engineer of the Board, the stone accompanying any bid be not suitable for the work, such bid will be rejected.

The quantity of stone used in the stone embankment will be determined by weight.

A ton is 2,240 pounds. The Board will erect the necessary scales, and the weighing will be done under the direction of the Chief Engineer. The contractor must give every facility for the thorough and accurate determination of the quantity of stone used.

The wharf must be built in sections as the embankments progress. The Chief Engineer will fix the date of commencement and the extent of each section.

If, from any cause, any portion or portions of the work be done not in accordance with these specifications, or without the approval of the Chief Engineer of the Board, the contractor shall, at his own expense, remove and properly rebuild such portion or portions; or the Chief Engineer may cause such removals, and the work to be properly done, and deduct the cost of the same from the amount due the contractor.

No Chinese nor Mongolian labor shall be employed on the work, under penalty of forfeiture of the contract, at the option of the Board.

TERMS.

Each bidder must state in his proposal:

First—The price per ton, of 2,240 pounds, for which he will furnish the stone required, and place it as required, by these specifications.

Second—The price per cubic yard, determined in the vehicle of transportation, for which he will construct the earth embankment, as required by these specifications.

Third—The sum for which he will furnish the materials and construct the wharf, as required by these specifications.

The bids will be compared as follows: The amount of stone required will be taken at 216,000 tons; the amount of earth required at 285,000 cubic yards, as estimated by the Chief Engineer. The cost of the stone embankment determined from the price bid per ton; the cost of the earth embankment determined from the price bid per cubic yard, and the cost of the wharf, in each bid will be added together, and the contract awarded to the bidder whose aggregate bid is the least—subject to the right of the Board to reject any and all bids.

Every proposal must be accompanied by a certified check for an amount equal to five (5) per cent of the amount of such proposal; such check to be made payable to the order of the Secretary of the Board, conditioned that if the proposal be accepted and the contract awarded, and if the bidder shall fail or neglect to execute the contract and give the bond required within six (6) days after the award shall have been made, in that case the sum mentioned in said check shall be deemed liquidated damages for such failure and neglect.

All bids must be on blanks furnished by the Board.

The contractor must give a bond in the sum of $50,000, with two or more responsible sureties, to be approved by the Board of State Harbor Commissioners, for the faithful performance of the contract.

The Board reserves the right to reject any and all bids.

ACCEPTANCE OF THE WORK AND PAYMENTS.

The work will not be accepted until the whole shall have been completed to the satisfaction of the Chief Engineer, and in accordance with these specifications, and the embankments maintained at the proper grade for three (3) months.

Payments will be made by orders on the State Controller, directing him to draw his warrants for the proper amounts against the San Francisco Harbor Improvement Fund. Such orders will be made upon monthly estimates of the value of the materials used and work performed, to the extent of seventy-five (75) per cent of such values; the estimates to be made by the Chief Engineer of the Board.

When completed in accordance with these specifications, and accepted, final payment will be made in the same manner.

MARSDEN MANSON,
Chief Engineer of the Board of State Harbor Commissioners.

January 16, 1884.

Chapter X, Title VII, referred to in said contract, can be found in the Political Code, at page 471, and is known as Sections 3244 and 3245, and reads as follows, viz.:

Section 3244. Eight hours of labor constitute a day's work, unless it is otherwise expressly stipulated by the parties to a contract.

Section 3245. Eight hours constitute a legal day's work in all cases where the same is performed under the authority of any law of this State, or under the direction, control, or by the authority of any officer of this State acting in his official capacity, or under the direction, control, or by the authority of any municipal corporation within this State, or of any officer thereof acting as such, and a stipulation to that effect must be made a part of all contracts to which the State or any municipal corporation therein is a party.

Under said contract, Messrs. English, Hackett, Schuyler, and Wagner, associated as partners in said work, entered upon the construction of the section of the seawall indicated, and completed the same to the satisfaction of the Board of Harbor Commissioners, by whom the same was accepted.

Section six of the seawall was constructed under a similar contract as that under which section five was constructed, by the San Francisco Bridge Company, a corporation.

THE "TRUCK" SYSTEM.

With respect to the so called "truck" system, which is defined as a "system whereby laborers are compelled to receive their pay in goods or commodities other than money," or, as it is charged in this investigation, "where laborers were required, under penalty of discharge, or as a condition of employment, to board at some boarding house in which the contractors were interested, or from which they received a commission or some pecuniary advantage."

No evidence was offered or introduced to show that any such practice was resorted to or pursued by English & Co., in the construction of section five of the seawall.

As regards section six in this respect, Emanuel Joseph, a foreman in the employ of the contractor, the San Francisco Bridge Company, in the construction of said section six, compelled and required, under penalty of discharge, some of the laborers and workmen in the employ of said company to board at a certain boarding house against the wishes of such laborers and workmen.

From the evidence I submit the following extracts, viz.:

Leo Gruen, a laborer, says that Mr. Joseph, the foreman of said bridge company, told him (Gruen) that he had orders from Mr. Mertens, a member of said bridge company, to tell him to board at one Kerwin's boarding house; that he (Gruen) refused to comply with said order and was discharged from employment on said work.

John D. Young, another laborer, was informed by said foreman Joseph, that if he (Young) did not board at Kerwin's boarding house, he would be discharged; that these were Mr. Mertens' orders, and for him (said Joseph) to discharge all men who refused to board at said boarding house; that he (Young) refused to comply with said order to so board, and was discharged from employment.

Charles Wilson, "a laborer and a married man of family," retired from the employment of said bridge company, while at work on section six of the seawall, because he did not wish to comply with the order of one Gray, the managing foreman of said bridge company, which order was for him (said Wilson) to board at Kerwin's boarding house; that at the same time there were fifty-nine laborers on section six of the seawall, working for the said bridge company, who boarded at Kerwin's boarding house, under orders from said Gray.

John Burke, a laborer and a married man of family, states that when he went to work for said bridge company on section six of the seawall, he boarded at home with his family, and so stated to foreman Gray in reply to a question. Gray then told him that he must board at Kerwin's boarding house or quit work, and after working three days, rather than board at said boarding house, he quit work.

Michael Delancey, a laborer and a married man, states that at the time he commenced to work on section six of the seawall for said bridge company, he boarded at home; that said foreman Gray told all the men that if they did not board at Kerwin's boarding house they could not work for said bridge company on section six of the seawall.

Emanuel Joseph, a foreman in the employ of the said bridge company in the construction of section six of the seawall, stated that Mr. Merwins, a member of said company, told him (Joseph) to send all men he employed on said work, the bridge company, to Kerwin's boarding house to board; that he discharged laborers for refusing to board at said house, and he told all men that they must board there or be discharged.

Foreman Gray and Mr. Mertens denied that they ever *ordered* any of the laborers in the employ of said bridge company on section six of the seawall, to board at Kerwin's house, and in case they (the laborers) refused to board at said house they should have to quit work. Foreman Gray also stated that he did *request* some of the laborers to board at Kerwin's house, but their refusal to do so did not cause their discharge from employment.

I am satisfied beyond doubt that there were some sixty or seventy laboring men in the employ of the San Francisco Bridge Company, in the construction of section six of the seawall, that boarded at said Kerwin's boarding house, most of whom were compelled to do so, and did so, in order to keep employment with said bridge company on section six of the seawall, and that nearly all the laboring men on said work who refused to board at the said house were immediately discharged and thrown out of employment of said San Francisco Bridge Company upon said work on section six of the seawall.

Some of the men were married men of family, having their own houses wherein they lived and boarded; and at the same time, in order to keep employment in said company, were forced to board at the said boarding house.

I am also satisfied that all men who boarded at said boarding house found employment and were kept in the employment of the said bridge company, on section six of the seawall.

As a matter of fact, this so called "truck" system has been in vogue, and that a great discrimination has been made between the laboring men on section six of the seawall by the contractor, the San Francisco Bridge Company, in the execution of said work under its contract with the Board of State Harbor Commissioners, by allowing men to be discharged from its employment simply for refusing to board at a certain boarding house, designated by its foreman and managers—this discrimination extending to married men of family, living at home, from which they were compelled to leave in order to get employment on said work. All of which I condemn as an outrage and infamous.

I recommend that in the future, where contracts are made for the performance of any and all kinds of public work, that a special and distinct clause be inserted in such contracts, strictly prohibiting such practices, under penalties, thereby allowing all laborers and workmen the privilege of exercising their own judgment in the selection of their boarding houses, and the purchase of their goods and wares.

EXERCISE OF THE ELECTIVE FRANCHISE.

I report that there was no foundation for any allegation or charge that the laboring, or any men employed by the contractors in the work of constructing sections five and six of the seawall, were interfered with in the exercise of their elective franchise, or that there was any attempt made to intimidate or influence any of them in respect thereto.

But as regards section five, I find that one of the foremen in the employ of the contractors of said section five of the seawall, on account of actions, unsatisfactory to themselves, of ex-Supervisor Sullivan, while a member of the Board of Supervisors of the City and County of San Francisco, threatened to use their influence against Mr. Sullivan in his candidacy for a reëlection.

The unsatisfactory action of Mr. Sullivan was his opposition to the opening of certain streets, whereby the contractors could get rock and fillings, to be used in their work in constructing section five of the seawall.

For this opposition said foreman, named Barry, in the employ of contractors English & Co., threatened to use his influence against Mr. Sullivan, as above stated.

No evidence has been offered to show that said threats were put in execution by the contractors, or any one else.

EMPLOYMENT OF MONGOLIANS, OR CHINESE.

In respect to the employment of Mongolians, or Chinese, upon section five of the seawall, I find that Section 3, Article XIX, of the Constitution of the State of California, which reads as follows, viz.: "No Chinese shall be employed on any State, county, municipal, or other public work, except in punishment for crime;" and also the last clause in the contract in reference thereto, has been fully complied with, and that no Chinese or Mongolian labor was employed in the work on section five of the seawall.

In respect to the employment of Chinese upon section six of the seawall, I find that the contractor, the San Francisco Bridge Company, while quarrying its rock at Sheep Island, in the Bay of San Francisco (which rock was used in the construction of said section six), it boarded its men at its own boarding house, at said island, at the same time having the domestic labor and work in said boarding house performed and done by Chinese; but no Chinese were employed directly upon the work.

THE EIGHT-HOUR CLAUSE.

In regard to the question as to whether the eight-hour law, Article XX, Section 17, of the Constitution, which reads as follows: "Eight hours shall constitute a legal day's work on all public works," applies to contracts let and made by the State, I find that it does, and applies to all public work of every character done for the State.

This section of the Constitution, after a thorough and exhaustive debate, was adopted in the Constitutional Convention by a vote of ninety-nine ayes in favor of it to seventeen noes against it, which shows that it was almost the unanimous act of the Convention in adopting it.

From a perusal of the debates had upon the question, while it was under consideration in the Convention, I am satisfied that it was the intention of the framers of the Constitution, and the people who adopted it, that *all public work* done by or performed for the State of California should be done under said section, and that eight hours should constitute a day's labor in such performance, whether done directly by the State or by contract, and that it is the duty of the Board of State Harbor Commissioners to enforce the provisions of said section upon all work in its jurisdiction, not only for the reason that their oath of office requires them to "support the Constitution and laws of the State," but there is an express covenant in the contracts that "eight hours shall constitute a legal day's work under it," etc.

Yet the testimony shows that in spite of the fact that the eight-hour clause was inserted in the contracts, signed by the Harbor Commissioners and contractors, it was violated by the contractors by compelling their men to work ten or more hours a day, and not enforced by the Commissioners in that respect.

This question of the hours of labor is undoubtedly a very broad one, upon which a great deal may be said.

I believe, without a fear of contradiction, that the best judgment of the enlightened men who have studied this subject, is that eight hours is a legitimate day's work.

I do not now refer to mere theories, but I here say what the greatest private employer of labor that ever lived, who at one time had as many as sixty thousand men in his employ, said.

He has left behind him the statement that the result of his experience was that by working men eight hours a day, more work and better results were attained than if they worked ten hours a day.

While Mr. Van Buren was President of the United States, he shortened the days' work in the yards of the country from twelve hours to ten hours; and history tells us what a disturbance and furore it was thought would be created, and how the employers objected to it; still the law went into effect, and after awhile the private employers followed the example of this greatest employer—the country.

Everything went along all right, and the employers were not hurt one particle. They even found that the work was better done than under the old system.

Then we come down to a still later period, in the year 1868, when the hours of labor were shortened from ten hours to eight hours a day.

I am convinced that eight hours for a day's work is the true system, both for the employer and for the workmen who are in his employment.

Hon. Grover Cleveland, the present Chief Executive of the United States, in a recent interview with Mr. O'Neill, the Chairman of the Committee on Labor and Capital of the House of Representatives of the present Congress, said:

> I believe that the law [meaning the eight-hour law] is a sound one and a good one, and that it should be enforced to the letter. I have no information of instances of its violation or evasion, and if such instances are presented to me, I will see that the abuse is remedied and the full spirit of the law is enforced, which I understand to be to pay workmen in Government employ, for eight hours work daily, what is paid outside of Government employ for a full day's work.
>
> The Government cannot afford to set the example of non-enforcement and non-observance of its own enactments.

What plainer or more explicit language can we use than this?

It is also a very remarkable fact that the views of the workingmen are thoroughly sustained by the views of the scientific men who have studied the subject thoroughly—especially the scientific men of England and France—and they have ascertained and determined that eight hours is a proper day's work for a workingman.

Of course there are two views of this subject. One is the view of the average employer, and that is to get out of his men all the work that he can during the working hours. The other is a view which a great Government should take in dealing with the question: that is to say, to have the workingmen work just so many hours as will maintain his productive powers to the highest point and for the longest average of his life. In order to do this, let him have eight hours for rest and sleep, eight hours for recreation and pleasure, and eight for labor. This is what is intended by the sections of the Constitution and laws hereinbefore cited.

The evidence before me shows that the contractors in the execution of their contracts, in the construction of sections five and six of the seawall, knowingly ignored and violated their contracts in respect to the eight-hour law, and notwithstanding the clause to that effect, refuse to allow their men to work eight hours for a day's work, and compelled them to work and labor ten hours a day, upon said seawall.

It may be said that there is no penalty prescribed by law for a breach of the contract in that respect.

Was it not the duty of the Board of Harbor Commissioners to see that all of the provisions of said contract were carried out and performed?

Even could not your Excellency have insisted that they be carried out—especially the eight-hours clause and law, "if information of its violation or evasion was presented to you?"

Would not your Excellency have done the same as President Cleveland says he will do, if you had any such information?

Why did the Commissioners take an undertaking and bond from said contractors, the conditions of which are:

> To do and perform certain work and other matters and things in and about *the property of the State of California*, in the Harbor of San Francisco, under the control of said Board, as will more fully and particularly appear by reference to said contract and specifications attached thereto.

This Board is for the performance of the work under the conditions and terms of the contract. And as there has been a violation of the contracts by the contractors in respect to the eight-hour clause, I respectfully call your Excellency's attention to the same for such action in the matter as you may deem necessary and proper for the purpose of having an authority for the future, upon such kind of clauses in like contracts, as Section 7 of Article V of the State Constitution is, that "the Governor shall see that all laws are faithfully executed," thereby placing in the hands of your Excellency the power and duty to assist the laboring men of the State, by seeing that the eight-hour law is enforced upon all public work, and not allowing rapacious contractors and local officials of the State to make contracts to perform State or public work with an eight-hour clause in it, and under a cloak of a decision of some Court, which has no bearing on the matter, claim that the laborer can be compelled to labor more than eight hours a day.

WHY THE EIGHT-HOUR LAW AND CLAUSE IS NOT ENFORCED.

There are thousands of people in our State wondering why the constitutional provision and statutes are not enforced, and whose duty it is to see that they are enforced, and why they are apparently dead letters in the books.

I will here give opinions from the testimony before me, of several witnesses, whose sworn duty as officials of this State, and personal agreement with such officials, bound them to see that the eight-hour law was enforced, so far as they were officially and individually concerned.

Ex-Governor Irwin says that he will not admit that the employés of the State Harbor Commissioners are subject to the eight-hour law, as they are employed by the month, at a stated monthly salary. So far as the State is concerned, it is immaterial whether the employés of a contractor, doing State work, under a contract for the Board of State Harbor Commissioners, work five, six, eight, or ten hours a day, as the contractor has got to do certain work at a stipulated price.

Mr. Hackett, one of the contractors, says that the workmen were working for his firm, and not for the State, notwithstanding the agreement to have eight hours a legal day's labor on said work.

Mr. Schuyler, also one of the contractors, says that if he chose to hire men by the hour, and work them sixteen or twenty hours a day, that it is nobody's business, notwithstanding that it is public work, and he agreed to have eight hours' labor constitute a day's work, and it being the law.

Mr. English, also a contractor, says "that the legal adviser of the Board of State Harbor Commissioners had informed him that the Supreme Court had decided in reference to the eight-hour clause in the contract, and that he had a right to make his own arrangements as to the hours of labor without any reference to the provision in the Constitution, but if the eight-hour clause had been in the specifications, that he would have bid for the contract and work accordingly."

Mr. Manson, the Engineer of the Board of State Harbor Commissioners, says "that the eight-hour clause is merely a citation."

In the foregoing abstracts, in speaking of themselves, the witnesses use the plural number, but for convenience and harmony in this report I use the singular.

Mr. Coogan, the legal adviser of the Board, evades a direct answer to a question upon this eight-hour clause in the contract by referring to the cases of *United States* vs. *Martin*, 94 U. S. Reports, 400, and *Carroll* vs. *Smith*, 38 Cal. Reports, 325, as a proof that the law is a dead letter.

In the course of my search for authorities in support of the action of the Commissioners in not enforcing the law, I find but two cases (those cited by Mr. Coogan) which have bearing upon it, and neither of them, in my opinion, affects its status as the law of the State of California.

The case of *United States* vs. *Martin*, is an action which Martin brought to recover extra pay for overtime. The decision of the Court was rendered by Justice Hunt, and decided that when a person *has agreed to labor twelve hours for a certain sum*, he cannot recover extra pay under the eight-hour law of the United States, which reads as follows:

> Eight hours shall constitute a day's work for all laborers, workmen, and mechanics employed by or on behalf of the Government of the United States.

The first two sections of the syllabus to the decision in this case explain the opinion of the Court, and read as follows:

> 1. The Act of Congress of June 25, 1868, declaring that eight hours shall constitute a day's work for all laborers, etc., * * * is in the nature of a direction by the Government to its agents.
> 2. It is not a contract between the Government and its laborers, that eight hours shall constitute a day's work. It neither prevents the Government from making agreements with them by which their labor may be more or less than eight hours a day, nor does it prescribe the amount of compensation for that or any number of hours' labor.
>
> We regard the statute chiefly as in the nature of a direction from a principal to his agent, that eight hours shall be deemed to be a proper length of time for a day's labor, and that his contracts shall be based upon that theory.

It will be noticed that the Act of Congress, or the United States eight-hour law, is very different from our California law, but were it the same, the decision quoted would not support the position assumed by the Board of State Harbor Commissioners, contractors, and the attorney, as the portion of that decision which leans strongest against the eight-hour law is in the following language, viz.:

> It prevents the Government from making agreements with them by which their labor may be more or less than eight hours a day; nor does it prescribe the amount of compensation for that or any number of hours' labor.

Now examine the law of the State of California in the light of the decision above quoted.

The Government of the State of California makes an agreement, in the statute of February 21, 1868, that all work performed by any one for the State, and for municipalities of the State, shall be eight hours for a day's labor; and when any work is let out by contract, the contracting parties must expressly agree to work their men eight hours only for a day's work.

By reference to the case of *Carroll* vs. *Smith*, the case relied upon by the Board of Harbor Commissioners, contractors, and attorney, as declaring this eight-hour law unconstitutional, I cannot find in any portion of the decision of the Court where one word is uttered against the adjudication of the eight-hour law of February 21, 1868.

On the contrary, it distinctly says that contracts similar to those under which the seawall is constructed, come under the provisions of the law.

Perhaps a short statement of the facts of that case may be of some benefit, hence I give it here, as follows:

Smith was the Street Superintendent of the City and County of San Francisco. The Board of Supervisors of the city and county let a contract to Carroll & Drew, to do certain street work.

The Superintendent of Streets prepared the contract, inserting therein a penalty of forfeiture of all payment for a violation of the eight-hour clause.

Drew refused to sign the contract so prepared, and brought an action to compel the Superintendent of Streets to prepare a contract, without having the eight-hour clause inserted, by leaving out the penalty.

Judge Morrison, now Chief Justice of the State, sustained the action of Smith, the Superintendent of Streets, and Drew, the contractor, appealed to the Supreme Court.

Opinions were rendered by the Supreme Court on the appeal—a majority opinion reversing the lower Court, and a minority opinion sustaining the eight-hour clause; Justices Sawyer, Rhodes, and Sanderson filing the majority opinion, and Justices Sprague and Crockett filing the minority or dissenting opinion.

The following are quotations from the opinions filed in the case. From the majority opinion:

> We have no doubt that the contract in question is a contract by the "authority" of a "municipal government," within the meaning of the Act. * * * If wages are two dol-

lars a day, the laborer can be required to work only eight hours for it; but there is nothing in it which prevents him from working two hours more as extra work, or as part of another day's work, and receiving fifty cents of extra pay therefor.

From the minority or dissenting opinion:

> * * * In the performance of the work under the contract, eight hours shall constitute a day's work, and that in the performance of the work required by the contract, the contractors will not require, or be a party to any stipulation for a different limit to the time for the performance of a day's labor. * * * But he, Smith, had the right *and it was his duty to compel* the contractor to stipulate that he would not *require* any laborer by means of a contract with him or otherwise, to labor more than eight hours per day.

The only hypothesis upon which to base the action of the agents of the Government in respect to this eight-hour law, is that they consider the Government and people to be two different, distinct, and opposing forces, instead of being one and the same. That it is better and more economical for the State to pay and expend a few dollars less for work and labor performed by contract, even when the contractors pile up fortunes thereby and the laborer is paid starvation wages, and is compelled and forced to work and labor day and night in the bargain, in spite of the express provisions of the organic law and statutes of the State, when, in fact, it would be for the best interest of the State and her citizens to have all work performed for it, well done, decently paid for, and not having the money all go into the capacious pockets of contractors; that respectable and living wages be paid to the laborers, artisans, and mechanics, in order that they may decently support themselves and families, and not be forced and compelled to separate from their wives and children to herd like a band of Mongolians in a city front boarding house, under a penalty of losing employment, for refusing to do so.

There is more in this eight-hour question than the mere saving of a few paltry dollars to the State Treasury in the letting of a contract.

All laws should be strictly enforced, and if found to be injurious, then they should be repealed. But as long as they remain upon the statute books, it is a violation of law and justice, and their oath, for an executive officer to treat them as being null and void.

The eight-hour law is in as full force and effect this day as it was the day on which it became a law.

One of the duties of our State Government is, as far as it is able, to ascertain whether all of its people can earn a livelihood, and be respectable and decent law abiding citizens, and whether any of them are compelled, through no error or fault of theirs, to roam and tramp through the country as vagabonds and outcasts upon the world.

This eight-hour law was enacted as a part alleviation of the laboring classes. All good thinking and fair minded men, who have studied our system and understand the immense power of labor-saving machinery, know that it is utterly impossible for hundreds of thousands of people who are dependent upon their daily toil for a livelihood, to procure employment.

Mr. English, one of the seawall contractors, testified that every day his company refused work to about twenty-five or thirty men, having nothing for them to do. This one item in itself should be sufficient to compel the enforcement of the eight-hour law.

THE FACTORY SYSTEM, OR LABOR–SAVING MACHINERY AND ITS EFFECTS UPON THE LABORING CLASSES OF THE STATE.

In the State of California in the year 1884, the work done and performed by machinery equals at least ten times the work of hand labor.

It would require about one hundred and fifty millions of persons, working by hand labor, to produce the same results which are now accomplished by three millions of persons working by machinery, in the United States.

This computation may be very wide of the truth, but any other is equally startling.

This estimate will hardly be disputed when it is considered that in spinning alone, eleven hundred threads are spun by machinery now at one time, where one was spun by hand.

A few facts such as these ought to convince any and all fair minded men that the normal day's work, in hours, should be materially shortened, to give more persons a chance of earning an honest living.

THE INJUSTICE TO THE PEOPLE BY REASON OF THE NON-ENFORCEMENT OF THE EIGHT-HOUR LAW.

The non-enforcement of the eight-hour law by the officials of the State of California, is an injustice to the people of the State.

If there ever was a contract between the people and the political parties, it was an agreement to have enacted and enforced in good faith a law reducing the hours of labor; which, after a bitter contest and spirited agitation, together with a most solemn agreement of all the parties, culminated in the law of February, 1868.

The events of the several previous years, still fresh in our minds, proved that something had to be done in the interest of the laboring classes of our State.

During the war of the rebellion two millions of men were taken from the industries of our country to become destroyers.

To supply these and others with necessaries, industries were encouraged, and few idlers were to be found, and the tramp was unknown.

But, finally, the peace of Appomattox reduced the great demand for laborers, by transforming this vast army of destroyers to producers.

The exigencies of the nation had caused a large increase of labor-saving machinery, that employment could not be furnished even to patriots who had sacrificed everything to principle and the preservation of the country.

It was then that the leaders in the movement could see no egress out of the dilemma, only by increasing the demand for labor by reducing the normal work day to eight hours.

Through this means they agreed that one fifth more persons could receive employment and earn an honest livelihood, one fifth more comfort and happiness could be given to the people, and the peace and stability of the country be enhanced to that degree.

In many of the States eight-hour leagues were organized. In 1865, several of the trades inaugurated the eight-hour system, but through the united and determined opposition of the employers, aided by others, the attempt failed.

It was then determined to try and enforce by legislation that which they had failed in by moral suasion.

In the session of the Legislature of our State in the years 1865 and 1866, a bill was passed in the Assembly by a very large majority, but was refused passage and defeated in the Senate, lacking two votes for its passage in that body.

Monster mass meetings and processions became and were the order of the day, in condemnation of the defeat of the bill.

In the political campaign of the year 1867, both the Republican and Democratic parties bid for the vote of the eight-hour men.

The conventions of each of said political parties inserted in their campaign platforms an "eight-hour plank."

The result was that on February 21, 1868, the eight-hour men were successful, and an Act was approved declaring "that eight hours labor shall constitute a day's work."

DAMAGES TO PRIVATE PROPERTY BY THE CONTRACTORS WHILE CONSTRUCTING THE SEAWALL.

During the investigation it was conclusively proven that several owners of property upon Telegraph Hill, in the City and County of San Francisco, have been damaged to a considerable extent by reason of blasting and excavating the said hill by the contractors of section five of the seawall, for the purpose of getting rock and fillings to be used in the construction of the seawall under said contract, that is to say, section five.

That all said property owners, in fear of their lives, were driven from their little homes and firesides by the actions of said contractors, in causing the blasting and tearing down of said Telegraph Hill.

These people, who have been damaged in the loss of and by injuries to their property, were the owners of the same, and a majority of them had resided upon such property for a period of from twenty to thirty years, and until they were driven therefrom by the actions of the said contractors.

After a careful examination, I am satisfied, and so report, that the following persons, property owners, have sustained damages in the amounts set opposite to their names, by reason of such blasting and excavating of said hill as aforesaid, viz.:

Mrs. McGregor Baber	$10,000 00
Mrs. Ed. J. McArevey	2,500 00
Timothy Murphy	2,000 00
Michael O'Neill	700 00
Ellen Burdette	600 00
Eliza Kelleher	4,000 00
John Wrixon	1,500 00
Bern. Ward	1.700 00
Eliza Overon	3,000 00
Bridget F. Houston	4,000 00
	$30,000 00

Surely the people should not have been deprived of their property in the manner in which they have been. There must be some recompense for them. I do not think that it ever was or now is the intention of the officials of the State of California to allow such things to be done.

The contractors, Messrs. English & Co., claimed to have the right to grade certain streets on Telegraph Hill, under a resolution of the Board of Supervisors of said city and county, dated May 24, 1884, and which resolution is known as No. 17,112. The evidence before me shows that the rock and filling excavated by said contractors while grading such streets under the said resolution, was used by them in the construction of section five of the seawall, under their contract hereinbefore set forth and mentioned.

This contract, as I said before, is dated February 20, 1884, exactly three months and four days prior to the date of the said resolution of the Board of Supervisors, which authorized them, the said contractors, to grade certain streets on Telegraph Hill.

Now if these contractors had any right or authority to take that rock and fillings from Telegraph Hill for the purpose of constructing said section five of the seawall, they should have had such right or authority, and it was their duty to so have, if it was their intention to take and use said rock and fillings for such purpose, prior to the acceptance of their bid for the contract to do said work on the seawall, that is to say, prior to the twentieth day of February, 1884, and not after that date, because here we will look and see what the specifications attached to the contract say.

In the specifications, under the head of "Conditions," we find that the sixth condition reads as follows, viz.:

> Each bidder must state in his proposal the quarry, or exact locality, from which he will obtain his rock, and must submit with his proposal about a twenty-five pound specimen of the rock which he intends to use, duly labeled with his name and the locality from which it was obtained, etc.

Then it follows that these contractors knew from whence they intended to get the rock, yet at that time they had no right or authority to take the same—nor for fully three months after the date of their contract. Still, it was in the specifications that they should have known, as they claim that everything in the specifications must be carried out and performed; and that everything to be carried out and performed under the contract must be in the specifications. Even, if in order to do so, by taking poor people's property, without compensation, driving and carting it down to and dumping it into the Bay of San Francisco, in order to build a seawall for the State, although, as they claim, it is not public work, besides driving them from their homes.

These property owners have claims and rights in the premises, but as it is beyond my province and duty, I do not make any recommendation as to the manner of procedure to be pursued by them.

FORMER INSTANCE OF THE TAKING OF PRIVATE PROPERTY TO BE USED IN THE CONSTRUCTION OF THE SEAWALL.

This is not the first instance where the seawall was constructed by the taking of private property for such purpose. Under an Act of the Legislature, dated March 15, 1878, it became necessary for the purpose to use private property belonging to one Nicholas Luning and others. An action to condemn the said private property so required was instituted, and such proceedings were had therein that in March, 1884, a final decree of condemnation was made, and the sum of $58,500 was assessed as the *damages for the taking of such private property, and said sum was paid by order on the Harbor Improvement Fund on February 12, 1884.* In the meantime, however, the State had in fact taken the land and built the seawall.

This payment was made exactly eight days prior to the date of the contract under which section five was constructed. Was not sufficient caution and notice that the private property of those poor people should be let alone, and that some proper and legal steps should have been taken to condemn the same, if it was required, and remunerate the owners thereof, instead of doing what has been done?

The total amount of damage to these poor people's property amounts to $30,000; yet in the one single case above cited the assessed damages amounted to $58,500, which last named sum has been fully paid.

COST OF CONSTRUCTING SECTIONS FIVE AND SIX.

The bid upon which the contract was awarded for the construction of section five of the seawall was $223,970. The cost of building it was $169,839 57—the cost per linear foot being $169 84.

The bid upon which the contract was awarded for the construction of section six of the seawall was $123,343. As this section is not yet completed, I am unable to ascertain the cost, as the rock and fillings used in its construction are paid for by the ton and cubic yard, the amount of which cannot be ascertained until the completion of the work.

CONDITION OF THE LABORING MEN EMPLOYED UPON THE WORK.

The condition of the laboring men on said work, in a general term, was bad, they receiving the very lowest pay paid to laboring men in the City and County of San Francisco; that is to say, they received $1 50 to $1 75 a day.

The reason of this small pay is that it was work done under a contract, and contractors were, according to their own testimony, "going to make something on the work; or were going to try and get even, if they did not make anything."

The men were not employed by the day on section six, but by the hour, at 17½ cents per hour for actual work.

All the men were compelled to and did work, on both sections five and six, in all kinds of weather, cold, rain, or sunshine; or, in other words, all the time they lost, they were not paid for.

WHY ALL PUBLIC WORK SHOULD BE DONE DIRECTLY BY THE STATE, AND NOT BY CONTRACT.

As to the question why the work is not performed directly by the State Board of Harbor Commissioners, I will state that, in my opinion, this work and all work of a public character, should be done by the State directly, and under the sole supervision of its officials, and not by contract.

In my opinion, these two sections—five and six—of the seawall, could have been constructed just as good, and for almost the same money, by the laborers of the State directly, as they have been by contractors. We have a law in our Code relative to this question, viz.:—Section 3233 of the Political Code—which reads as follows:

> All work done upon the public buildings of this State must be done under the supervision of a superintendent, or State officer or officers having charge of the work, and all labor employed on such buildings, whether skilled or unskilled, must be employed by the day, and no work upon any of such buildings must be done by contract.

From this section, it can readily be seen that the people of the State of California, represented in the Legislature, wish and desire that the work on the public buildings of the State should be done by day labor, whether the workmen were skilled mechanics and artisans or the commonest laborers. Its language is mandatory and compulsory on that very point.

Then why cannot the seawall, and all public work, be done in the same way, directly by the State, and by the day? Laboring classes would be benefited thereby, and the State would be the gainer. The fact that this work has been done, and that by contract, is sufficient evidence in itself that there was and would be sufficient money to pay for the work as it progressed, if done directly by the laborers, in the employ of the Board of State Harbor Commissioners.

In such a case, then, I think that the eight-hour law would be strictly enforced, our laborers well paid for their labor, their families and homes made more comfortable, and they would not be driven and ordered to board at a boarding-house in the manner in which they have been.

Even if it would have cost our State a few more dollars than what it has cost, the State nor the taxpayers would be no loser by it; and, on the other hand, its laboring men would be benefited by it and the laws respected and not violated.

A STATE BUILDING ERECTED BY DAY'S LABOR DIRECTLY BY THE STATE.

The State Capitol of our State was almost entirely constructed by day's labor directly by the State.

About the only thing that was done on it by contract was the roof, and as one of the witnesses facetiously, but truthfully remarked: "It was the only faulty thing in the building, as it leaked."

Are not our citizens proud of their Capitol building which was thus constructed, and to-day it is not a pile of ruins and brick, but is an ornament and honor to our State, to which our citizens point with pride. The cost of its erection was paid directly to the laborers who assisted in its erection.

A MUNICIPAL PUBLIC BUILDING, NOW PARTIALLY COMPLETED, AND UNDER THE CONTRACT SYSTEM.

We will look into the history of a municipal public building in the City and County of San Francisco, now partially erected, and under the contract system.

This building was commenced about the year 1871, fifteen years ago, and the Act providing for its erection specially provided that it should be erected under the contract system; that it should be erected at a cost of not to exceed $1,500,000 and the building should be erected and completed, and the grounds properly laid out and inclosed, within three years from the passage of the Act.

Instead of having the building completed within the three years required, and at a cost not to exceed $1,500,000, at this date, fifteen years after the passage of the Act, the building is nowhere near completed, and about $3,700,000 have been expended upon it; and instead of being known as the New City Hall, it is vulgarly called "the great ruin of San Francisco."

This great length of time, the uncompleted building and vast outlay of money, more than double the original amount, is the result of the contract system.

If the building was provided to be erected by day's labor, and not by the contract system, it would have been completed long ago, at a cost of less than one half of the amount already expended upon it, and the laboring men would have derived great benefits, respectable wages for their labor, and the City and County of San Francisco would have its New City Hall fully completed and paid for.

COMMENDATIONS AND ACKNOWLEDGMENTS.

I commend the manner and method in which the Board of State Harbor Commissioners caused the contractors to carry out and perform all portions of the contracts, excepting the eight-hour clause, especially the method and system adopted by the Board for determining the quality of rock and fillings, by weighing the same, instead of measurement as formerly.

This is the first occasion in the history of the construction of the seawall on which this system was practiced, and it was found to be much more economical than any other system previously practiced, and has resulted in a large saving to the State. And I am also satisfied that the Board of

State Harbor Commissioners, as now constituted, is one of the most efficient set of officials that this State has ever had; that they have carefully, judiciously, and honestly guarded the interests of the State in the work of constructing sections five and six of the seawall.

And in the person of Mr. Wadsworth, the efficient Secretary of the Board, I find an obliging and attentive gentleman, lending his aid to me and furnishing all information and data, as far as was in his power, during the progress of this investigation.

RECOMMENDATIONS FOR LEGISLATION.

I recommend the repeal of all laws whereby public work is performed by contract, and that all future public work be done under laws providing for such work to be done by days' labor only.

I respectfully submit the following draft for presentation to the next Legislature for consideration, viz.:

"All public work of the State and municipalities shall be done through the legally constituted authorities of the State or municipalities, and shall be performed by the day at ruling rates, and eight hours shall constitute a day's work upon the same."

This investigation was imposed upon me by the law-making power of the State.

I have endeavored to perform my duty impartially, faithfully, earnestly, and fearlessly, and in making this report to your Excellency, I do so with the intention of doing injury to none, but justice to the citizen workingmen of the State of California, who are entitled to the sympathy, support, and protection of the Commonwealth.

Very respectfully,

JOHN SUMMERFIELD ENOS,
Commissioner of the State Bureau of Labor Statistics.

INQUIRY BY THE COMMISSIONER OF THE BUREAU OF LABOR STATISTICS, AS TO "THE CONDITION OF THE LABORERS EMPLOYED ON THE SEAWALL AT SAN FRANCISCO," AND OTHER MATTERS PERTAINING THERETO, UNDER SENATE RESOLUTION OF MARCH 3, 1885.

SAN FRANCISCO, Wednesday, May 20, 1885.

In conformity to Senate resolution adopted March 3, 1885, Commissioner of the Bureau of Labor Statistics, John S. Enos, Esq., commenced this day the investigation directed by said resolution.

There were present John M. Days, Esq., who appeared for certain labor organizations, and the members and Secretary of the Harbor Commission.

On opening the session, the Commissioner of the Bureau of Labor Statistics, Mr. Enos, said: "This examination is conducted by me as Commissioner of this office, by virtue of a resolution passed by the Senate, a copy of which I attached to each subpœna."

The resolution reads as follows:

Resolved, That the Commissioner of the Bureau of Labor Statistics be and he is hereby requested to inquire into the condition of the laborers employed by the contractors on the seawall at San Francisco, with reference to whether what is known as the "truck" system is in vogue there; whether or not the eight-hour law (Art. 20, Sec. 17, State Constitution) applies to contracts let by the State, and whether or not such laborers are interfered with in the exercise of the elective franchise, and with reference to such other matters as may affect them and other laborers employed by the State Board of Harbor Commissioners, and all the suggestions set out in this report, and report the same to the Governor at as early a date as is consistent with a thorough investigation thereof.

DOUGHERTY, Chairman.

The preamble reads as follows:

> Whereas, Charges having been made that certain officials and contractors employed by the State Board of Harbor Commissioners, and engaged in the construction of the seawall at San Francisco, are violating the eight-hour law of the State, intimidating their employés, and compelling them to patronize boarding houses in which said contractors are interested, and otherwise setting the laws of the State at defiance; also, that said contractors are not executing their contracts as required by their specifications; therefore,
>
> *Resolved*, That the Committee on Capital and Labor be and they are hereby instructed to investigate these charges, and such others as may be preferred by the workingmen and property owners against the said seawall contractors, and report to this Senate, and for this purpose said committee is empowered to send for persons and papers.

It was referred to a committee, and the committee, after taking some testimony, reported that they had not time, and the matter was then referred to me for further investigation. That is the authority I have for taking this testimony and report to the Governor.

Mr. Days has been requested by certain labor organizations, and by myself, being the author of this resolution and being posted in this matter, to assist in this investigation.

William Irwin

Was first called upon to testify.

Mr. Days: I would state, Governor, that there were several letters sent to me, when a member of the Senate, from parties in San Francisco, stating that they thought certain charges could be proven in relation to the contracts let by the State Harbor Commissioners. Of course, the principal complaints were the violation of the eight-hour law, and the introduction of the truck system. Do you know what is meant by the truck system? The truck system means the payment of labor in provisions, or other things than money. They have passed laws in a great many States of the East, and have been passing them for the last twenty years, to prevent what is known as the truck system, wherein corporations or persons owning factories would board their hands, or compel them to trade at certain stores. That is the idea of the truck system. Then there were other statements made—that the contractors made the men in their employ vote the Democratic ticket, and other things of that kind. I have always taken a very great interest myself, in all labor questions, and especially in the eight-hour law, and to some extent in the truck system, and I suppose that is the reason they sent their letters to me. I handed one of the letters to the Secretary of the Committee on Labor and Capital, of the Senate, of which committee I was a member. He drafted the resolution, and it was adopted by the committee. As Mr. Enos has stated, the Senate committee did not have time to go into the investigation, and the committee made their report and introduced a resolution referring the matter to the Bureau of Labor Statistics. Upon consultation between Mr. Enos and myself, we thought we would first subpœna the Board of Harbor Commissioners, and get all the information that we possibly could from you in relation to how that office is run, and how contracts are made. I have several questions here that I have drawn myself, and many that were handed to me, which I put in their present shape. So, if you are ready, Governor, we will proceed with the investigation.

Question—Will you please give me your name and official capacity? Answer—William Irwin, and I am one of the Harbor Commissioners, and President of the Board.

Q. By whom were you appointed? A. By Governor Stoneman.

Q. For how long? A. Four years.

Q. What persons or corporation own the property under your charge? A. The property under our charge belongs to the State.

Q. Before entering upon the duties of your office what oath, if any, did you subscribe to? A. We subscribed to the general oath of office.

Q. To support the Constitution and laws of the State? A. Yes, sir.

Q. Then your oath of office required you to act in strict conformity with the Constitution and laws of the State? A. I should judge it did, sir, so far as those related to our official duties.

Q. That is, does it go beyond the general oath; for instance, such as we have taken, you and I, frequently in the Legislature? A. I do not think it does, sir.

Q. If the State owns the property under your charge, then all the work performed by contract is for the benefit of the State and is State work, public work, is it not? A. It is supposed to be done for the benefit of the public; it is an improvement made by the State for the benefit of the public, in the matter of commerce.

Q. That is, it is public work? A. Yes, sir; it is public work done under authority of the State.

Q. How are the State's revenues—that is, those under the control of the Harbor Commissioners—collected? A. They are collected by collectors appointed by the Board in pursuance of law.

Q. How are the funds disbursed; are they disbursed by the Board, or do they go into the hands of the State Treasurer? A. The funds are disbursed by the Board properly.

Certain things are paid for directly from the office; for instance, the salaries of the office, and expenses incurred in keeping the streets that are under the jurisdiction of the Board, and wharves, in repair, and known as urgent repairs. $4,000 may be expended for that purpose, and the expenses incurred in dredging, paying the men employed by the dredgers, and keeping the place in repair. These are paid by the Secretary, on orders made by the Board, out of money that is in the office; that is not sent to Sacramento. At the end of each month, or rather at the beginning of each month, there is a statement made up of all expenses, for the purposes that I have indicated, of the preceding month, and of the moneys that have been paid out, and the residue is forwarded to the State Treasurer and is put into what is known as the San Francisco Harbor Improvement Fund. That fund is then drawn upon by the Board when required to pay out sums due on contracts; that is, contracts let for building wharves, seawalls, etc.

Q. That is, they have to go to the State Treasurer for their pay; they do not collect from you? A. That is on what I specify. The payment of the officers, the Commissioners and Secretary, Wharfingers, etc., and $4,000 a month may be expended in what is known as urgent repairs; that is, repairs to wharves and streets under the jurisdiction of the Board, and expenditures in paying the persons employed in the dredging department and repairs for machinery used there.

Q. The sums for these purposes are paid directly out of the office? A. Those sums do not go to Sacramento. The Board audit those accounts, and upon that audit the Secretary (who is virtually Treasurer also) pays them, and there is a complete settlement made each month. The sums necessary for these purposes are paid, as I have stated, by the Secretary, out of the funds collected during the month; and what is left at the beginning of the month, within the first five or six days, is remitted to the State Treasurer, and goes into the San Francisco Harbor Improvement Fund. In other expenditures which are made on contracts—for instance, we want to build a wharf; under the law we adopt first a plan and specification. We advertise for bids, and then the contracts are awarded on those bids; and as the work progresses and the money becomes due to the contractor, we draw, what is termed in law, a draft on the Controller, and he draws a warrant, and that is taken to the State Treasurer and paid out of the Harbor Improvement Fund.

Q. Do you know of any improvement, Governor, that could be made in the law for either collecting or disbursing the public or State funds under your control for the benefit of the State? A. It is known that I hold the view that a very great saving might be made by a different mode of collecting; and it is known, also, that I prepared a bill, or bills, it might be termed, and had them introduced into the State Legislature for the purpose of accomplishing this object.

Q. What bills were those? A. In the matter of collecting.

Q. Who introduced the bills? A. Mr. Lynch introduced them; there were three bills. In fact, the last two were in substance same as the first, but they were put in two bills.

Mr. Enos: Are you limited to the sum of $4,000 per month in your expenditures for all purposes except contracts you have made for building, as the law requires you? Does the law require you to let contracts for all other sums? A. Yes, sir. The law permits us to expend as much as $4,000 in making what are termed urgent improvements; that is, a hole breaks in the wharf, and you cannot wait to advertise before repairing it.

Q. For all other improvements, the law compels you to have specifications and bids, and let it by contract? A. Yes, sir. Other matters are let by contract, but we are not required to advertise for work which does not amount to more than $3,000.

Q. On all matters beyond that, you have to advertise? A. For a contract where the work is to be done that will amount to over $3,000, we have to advertise for a period of ten days and get bids, and let the contract to the lowest bidder. A similar contract, where it would not amount to $3,000, we need not advertise if we choose.

Q. In other words, the law, up to a certain amount, gives you discretionary power to disburse these funds? A. No, sir; we have to do it by contract. We can only make certain kinds of repairs—urgent repairs. There is a hole breaks in the street, and that has to be attended to at once.

Q. You absolutely control that matter? A. Yes, sir. But suppose you want to make some other improvements in the nature of construction, and it does not amount to $3,000, but $1,000; instead of putting in an advertisement for ten days in a paper, we let the contract without that. We frequently do so. We notify the bidders privately. If there is some carpenter work, notice is sent around to the carpenters, and have plans and specifications, and ask them to send in bids, and award to the one that bids the lowest. But sometimes we advertise these, but do not advertise then so long as ten days. Where it is $3,000 or over, the law is imperative; it must be advertised for ten days.

Mr. Days: Do you know the number of these bills that Mr. Lynch introduced? A. 404 and 405, I think they were.

Q. Towards the latter end of the session? A. There was one bill introduced that embraced the subject of these two bills. I became satisfied that bill would not pass. Part of this matter I deemed it important to become law, and go into effect at once, so I then drew both bills, putting in substance the matter that was in the first bill into two other bills, thinking I would get that through. One of them was reported back to the committee with a recommendation that it pass; a little amendment was made to it, but it was never reached. The other one of these was simply reported back, I think—one of the bills was.

Q. What is the regular work performed by persons under your employ? A. There are quite a number of persons under our employ, and the different persons have different work. I think the whole number amounts to something like one hundred. Do you want a statement of the officers.

Q. Simply generally, not particularly. I suppose there are Collectors and Wharfingers and a Secretary. Does that include all? Have you carpenters? A. We have a Secretary's department; the Secretary, the Assistant Secretary, and Bookkeeper. And then we have another gentleman, a part of whose time is devoted to clerical work, and he collects also. He is General Collector, and assists in receiving the money in the morning from the other Collectors. The Collectors, under our rules, the first thing in the morning, come into the office and make a settlement of what they did the day before, and we have a gentleman in the office that assists in making these settlements. His work is clerical there. After that is through, he takes the bills that have been filed in the office from the Wharfingers. The Wharfingers are the bookkeepers on the walls. That is one branch of their work. They keep an account of each vessel, and when a vessel comes there. I don't know whether you understand the system. We have two charges, one against the vessel and the other against the goods. The Wharfinger keeps an account with the vessel. When a vessel comes there, the account is made up and put in the form of a bill and sent into the Secretary's office, and this Collector that I speak of, takes these and goes around to the merchants, the consignees of the vessel, the Captain of the vessel, or whoever it is that pays, and collects them. Then we have on the waterfront twenty or twenty-one Wharfingers. Their duties are, as I have stated, in part to keep an account of each vessel that comes to the wharf. Another duty is to act as policemen on the wharf, as I might term it. I do not mean a policeman, now, in the sense of policing people who come on the wharf, but the vessel. He directs a vessel to come here if necessary, or move there, etc. That is his business. We have a Chief Wharfinger and an Assistant Chief Wharfinger. When a vessel comes in port, the Captain, or consignee, as the case may be, comes to the office of the Chief Wharfinger and lets it be known to him that he has a vessel that he wants to get to a particular wharf. Then the Chief Wharfinger consigns him a place—gives it to him where he wants it if he can, and if not, as near as he can. Then he notifies the Wharfinger at the wharf that this vessel is assigned to a berth there, and hence, it is the Wharfinger's business, when the vessel comes up, to see that it goes in the wharf into the proper place. It is frequently necessary to move the vessel from the place assigned to make room for another one. It is the business of the Wharfinger to do this under the orders of the Chief Wharfinger.

Mr. Enos: And he acts under your orders? A. He acts under our orders, but we have general rules governing him. He comes and asks what to do in particular cases, but ordinarily he goes on and attends to his work, governed by general rules—by general rules that have been established for his government; but once in awhile he comes and consults with me, or other members of the Board.

Q. Are the Harbor Commissioners limited by law as to the number of appointments? A. No, sir, they are not. They are required to appoint such a number as Wharfingers and Collectors as in their judgment seem necessary to do the work that is to be done.

Q. It leaves it discretionary how many you shall select? A. Yes, sir; it is left to our discretion.

Q. Does the law, in relation to any other appointments that you make, define the duties of the office—give you any other discretionary powers; for instance, you deem the duties of the Secretary's office of such a character that he wants another man to help him; have you any right or authority to appoint one? A. Under the law we have not, strictly; but we are employing a bookkeeper without authority of law, and were doing it for the reason that the labors in the Secretary's office, under changes that were made by the Blanding bill, were so much that it was impossible to have the work done without another employé.

Q. And the law makes no provision for that? A. The law does not make provision for it, unless it be under the general clause as incidental expenses.

Q. You say you employ one. Is he paid under that general construction of incidental expenses? A. Well, we pay him; yes, sir.

Q. Are the duties of all the men that you employ, such as Wharfingers and Collectors, defined by law; those are defined by law, are they not, or are they defined by your rules? A. They are defined in a general way; as for instance, the law says the revenue shall be collected by Collectors. Then the particular rules that they shall observe is prescribed by the Board.

Mr. Days: What are the salaries paid, Governor, to those employed regularly? A. The Secretary receives $200, the Assistant Secretary $150. The law fixes his salary. The Wharfingers get $125 per month, and the Collectors $100. That is all fixed by law.

Q. That is the lowest, is it? A. No, sir.

Q. Then you have carpenters and laborers besides? A. We have men there in what we term the carpenter's department. There is not much of what would be strictly termed carpentry work done; it is laying plank on streets. And we have a Superintendent of repairs in that department to whom we pay $125 a month; and then a foreman in that department, what is termed the foreman, is paid $125 a month, and the balance $75 a month.

Q. How many days in the month does the Commissioners meet—how many hours in the day do they hold sessions? A. Well, we have regular meetings twice a week, and the meetings are fixed to commence at one o'clock, and we remain as long as we have anything to do on that occasion; sometimes we are there to evening; sometimes not so long; occasionally we have an extra meeting, when the circumstances may require.

Q. How many days in the week do the subordinates work, and how many hours in each day? A. They work six days a week, usually, unless there are holidays, and the Wharfingers and Collectors are required to be in their places at seven o'clock in the morning, and to remain until business closes on the wharves in the evening.

Mr. Enos: They work more than eight hours a day, then? A. Yes, sir; they work more than eight hours a day; we are compelled to do that.

Mr. Days: That would be five o'clock in the evening? A. Later than that in this season of the year; that depends what business is going on on the wharf.

Mr. Enos: You say you are compelled to work them; why are you compelled to do so; the law says that all public officials shall work eight hours? A. So far as that is concerned, we do not admit that they are subject to the eight-hour law, for they are not hired by the day.

Q. They work by the month? A. They work by the month.

Mr. Enos: I asked that question because it has been frequently put to me, and I wanted to know your views.

Mr. Irwin: I have not recognized those as coming under the eight-hour law at all.

Mr. Days: Then you only consider a man who was employed specially by the day as coming under the eight-hour law? A. I should think so, sir; for instance, these men who are employed by the month; if it is a rainy day and they cannot work their time goes on, and the question of hours is not considered.

Q. You do not call that public work; you simply call that official duties for the State, your Collectors, Wharfingers, etc.; their work is not what you call public work under the Constitution? A. I suppose that they hold the position analogous to the one you held, as State Senator, and I consider it your duty, if work accumulated, to work to ten o'clock at night, or twelve o'clock if it was necessary to have the work done, as I often have, and on Sundays.

Q. Eight hours constitute a day's work on public works; I suppose officials are not included in that, in your judgment? A. I don't consider that manual labor.

Mr. Wise: You do not consider this public work under that rule; it is public improvement.

Mr. Days: The only thing is to get the real facts.

Mr. Irwin: The fact is this, that in the urgent repair department they work eight hours a day, and we have a lot of persons engaged in sweeping the wharves, and they work eight hours a day, but the Wharfingers and Collectors work until business stops.

Mr. Enos: How is it with the carpenters? A. They work eight hours. The persons employed in the Secretary's office and the Engineer's office work the number of hours there is work to do; we expect them to do the work, if it takes twelve or eighteen hours.

Mr. Days: I suppose their general hours are from nine to four? A. That is, to be in the office. If their books are not written up, we expect them to do it, if it takes them to midnight. The law requires the office to be open for a certain number of hours, when they must be there and attend to business; the books may be written up afterwards. They may be occupied in the day so as not to do that, and it is their duty to go on and do it afterwards. We pay them by the month, not by the day. If a man is unwell a day we do not count it against him. He has his department of work to do, and he has to bring it up.

Q. Do you know if any of your subordinates gave paid assessments to any one for influence in procuring an appointment? A. I do not, sir.

Mr. Enos: You mean, Mr. Days, down there on the harbor front?

Mr. Days: Yes, sir; I do not mean pay to the Harbor Commissioners, but I mean paid to any person, such as fellows who are styled bosses. A. I do not know about it. They may have paid it, but I do not imagine that they have got value received if they did, and so far as the Board is concerned they have appointed persons whom they considered fit.

Mr. Enos: I will say to you that the reason some of these interrogatories are put and permitted to be asked by me is that there are vague rumors made almost daily to this office, and I therefore desire a full and free investigation of that and of other things. A. So far as I am concerned, I do not know of any money being paid to anybody, Commissioners or anybody else, to get appointments, but if there are charges and anybody makes them, I wish you would call those persons and compel them to disclose who has paid the money or offered to pay it to get appointments. If anybody charges that any one employed under us, in any shape, has paid money to get that position, we would like to know the fact, and I would like to have whoever has intimated it to you compelled to come here—for I suppose you have the power to do that—to come here and disclose the source of their knowledge, and who the party is that has paid the money, and who the party is that has received it.

Mr. Enos: I propose to do so.

Mr. Days: Besides the regular work performed by these employés, regularly from month to month, you make repairs and improvements on the wharves and city front. How do you proceed to make those improvements? A. All improvements that are not made by this repair force are made under contracts. Now, for building wharves, we first have the Engineer make a plan and specifications. That plan and these specifications are adopted by the Board, and the work ordered done. Thereupon an advertisement is inserted in the daily newspapers. We generally insert in two daily papers; I believe the law does not make it imperative that it shall be inserted in more than one, for at least ten days. Then the contract is awarded to the lowest bidder after they are opened, unless the Board deems all the bids too high. If they do they may reject the whole and advertise a second time. If, on the second advertising, they consider the bids too high, they may then proceed to let the contract without advertising further; but any contract let under such circumstances must be at least five per cent (I believe the law requires) lower than any bid; that is for wharves. Now, when it comes to building a section of the seawall, the law provides a Commission differently constituted from the ordinary Harbor Commission. When enough money has accumulated in the Harbor Improvement Fund to justify the commencement of another section of the seawall, it is the business of the Harbor Commission proper to notify the Governor of the State, and the Mayor of the City and County of San Francisco, that a meeting would be held, at a certain time they fix upon, to consider the question of commencing the construction of another section of the seawall. When that meeting is convened the question is considered. If the Board, as thus constituted, deem it proper to go on and build the seawall, they then determine to construct another section of the seawall, and they adopt plans and specifications for its construction. Then they advertise; the law requires the advertisement to be inserted in at least two newspapers for a period of not less than thirty days. Then, at the expiration of the time of advertising, the bids received are opened in the presence of the Board, constituted in the same way. If the bids are satisfactory the contract is awarded to the lowest bidder, and he is required to give bonds for the faithful performance of the contract.

Q. In advertising for bids for work to be performed, do you make any statement in relation to the employment of laborers and subordinates on State work? A. The contracts contain a proviso that no Chinese or Mongolians shall be employed. They contain a stipulation, also, that eight hours shall constitute a day's work in the performance of any work to be done under the contract.

Q. They do state that, do they? A. The contract contains a provision of that kind.

Q. Then, in that relation, you carry out the full extent of the law? A. I think so; yes sir.

Q. In relation to that, do you make any provision whatever to see that the contractors do not employ either Chinese, nor violate the eight-hour law? A. In regard to the employment of Chinese, the power is conferred upon the Board to nullify the contract if it shall see proper. It is left to their discretion. I can find nothing in the law in reference to employing men over eight hours, except the simple requirement that the provision shall be inserted in the contract.

Q. But when you insert the provision in the contract, and they violate the contract, it is as much a violation of the contract, if they make the men work more than eight hours, as it is if they employ Chinese, is it not? A. That may be so, but the law in the one case prescribes the penalty; in the other, it does not, and I believe that matter has been adjudicated and passed upon by the Supreme Court in reference to what should be placed in the contract.

Q. Then you think you had no power, having made a contract and that contract is violated, as far as the agreement is concerned of employing men only eight hours a day; you think you have no power to break the contract with the parties, or compel them to abide by the contract and work their men only eight hours? A. I do not know what the Courts might do in the premises.

Q. I am asking of your power? A. The Court has decided that a ministerial officer has no power to require the contractor, the party to whom the contract has been awarded, to accept a contract done under penalty. That issue was made directly, I think, in 1869, in the case of Drew & Carroll vs. Smith, 38 Cal., which arose in this city. Smith was Superintendent of Streets. That was under precisely the same law as we act.

Q. The eight-hour law passed in 1867? A. Yes, sir.

Mr. Enos: Did that contract contain this clause requiring them only to work eight hours? A. The case was this: The contractors had their contract prepared with a clause in it similar to what we put in ours. The Superintendent of Streets would not execute the contract, but had a contract prepared with another stipulation: one was that they should not permit the men in their employ to work over eight hours, and another was that if they did allow the men to work over eight hours they should not receive any pay on their contract. The contractors refused to execute the contract. The contractors applied for a writ of mandamus to compel the Superintendent of Streets to execute their contract. The District Court, I believe, decided against them. It was carried up to the Supreme Court, and they reversed the decision. He held that the stipulation put in the contract which the contractors had prepared and offered to execute was all that the law required.

Q. Do I understand you to say that you have inserted in your contracts for the construction of the seawall, the constitutional provision of the eight-hour law? Now, if knowledge is brought to you, as the Board of Harbor Commissioners, that the contractor violates that provision and works his men twelve and fifteen hours a day, you claim, as ministerial officers, that you have no legal right to declare the contract null and void? A. Yes, sir; certainly I would assume that, under the decision of the Supreme Court.

Q. In other words, you are powerless, as officers of the State, to enforce that law? A. Yes, sir. I take it that the decision of the Supreme Court in the case I have referred to is directly to the point. When the Legislature in this case sees fit not to provide any penalty, it was not competent for a mere ministerial officer to fix the penalty. The Legislature had to do it.

Mr. Enos: That is the same difficulty that is discovered with the Act of Congress.

[Mr. Wise here reads from a contract.] "And it is expressly stipulated that eight hours of labor shall be a legal day's work under this agreement, and all provisions of Chapter X, Title VII, of the Political Code applicable thereto are to be deemed as incorporated here. No Chinese or Mongolian labor shall be employed on the work, under penalty of forfeiture of the contract, at the option of the Commissioners."

Mr. Irwin: The law provides specifically that if the party who has the contract employs Chinese or Mongolian labor the contract is forfeitable, at the option of the Board.

Mr. Days: As far as the Mongolian or Chinese are concerned? A. Yes, sir. Now, in this case that I have referred to there were separate opinions written. There was the opinion of the Court, which held that a stipulation precisely similar to that—I do not know but what it was in the same language—complied with the law and required the Street Superintendent to execute the contract. There the contractors had offered a contract with a stipulation of that kind in it. As I before stated, the Street Superintendent put additional provisions to it. One was that they should not permit them to work longer than eight hours; and another was that if they did permit the men to work longer than eight hours they should not be entitled to any pay on their contract. The Court said this was in excess of what the law required. This penalty had not been prepared by the Legislature, and it was incompetent for a mere ministerial officer, as the Superintendent of Streets was, to add that to the law. Judge Sanderson was then on the bench, and, while concurring in the opinion of the Court, he wrote an additional opinion, in which he held that, for instance, if two dollars a day was the price of a day's labor, there was nothing in the law to prevent the contractor from hiring his men two hours more and giving them fifty cents additional—two dollars and fifty cents for ten hours. Eight hours constitute a day's labor, and if the price of a day's labor was two dollars, and he chose and the laborer chose to work for a longer period he could make a separate contract with them to pay them for the additional length of time they worked. That was not in the opinion of the Court, but he acquiesced in the opinion of the Court and the judgment, but this was additional. It is proper to say, however, that in this decision there were two dissensions. I think Sprague was on the bench, and Crockett, I think, dissented—the Court was then constituted of five. I think they both held that it was competent to require the contractor to assent to any stipulation that was put in the contract prepared by the Superintendent of Streets.

Mr. Wise: I would just call Mr. Days' attention to one thing. It is expressly stipulated that eight hours' labor shall be a legal day's work in this agreement. Now supposing the contractor with all his men works eight hours a day, averages eight hours a day right through, and they should have to work ten or fifteen hours some days, it makes no difference so far as we are concerned. The contract is complied with. If they worked six hours a day the State would be the loser. We would be the loser if they only worked five or six hours a day. All we stipulate to get is eight hours a day.

Mr. Irwin: So far as the State is concerned it is entirely immaterial whether they work five, six, eight, or ten. The contractor has to do a given work, to perform a given work for a stipulated sum, and so far as the interest of the State is concerned it is perfectly immaterial.

Mr. Days: That is so far as a monetary matter is concerned; but the State has some interest beyond that of money.

Mr. Irwin: I understand as a matter of general policy; but this was brought up to show that the State's interest was preserved if they worked eight hours, and they would not be preserved if they worked less. But I say if we let a contract the State has no interest in that question at all. The State is interested in the result, and gives a given sum for a given piece of work. . I notice here one of the contractors, Mr. Schuyler. They contracted to put in rock by the ton at so much, fifty-three or fifty-four cents it probably is. Now when a ton of rock is there it is immaterial to the State how many hours a day the people work to put it in. They simply put in a ton.

Mr. Wise: Mr. Schuyler took a contract to build a thousand feet of seawall, and he was to do it in twelve months' time. After he reached Union or Green Street we had to discontinue the wharves there. We had virtually to abandon those wharves where our Collectors were collecting $1,200 or $1,500 a month, and when they were discontinued we virtually got nothing for them. Now, if he dillydallied he could have kept us out of these wharves until the end of his contract, and then put on a force of men and rush it through. So we were interested in the contract, and the number of days he worked.

Mr. Irwin: I must dissent from that view of the case—that if they only worked one hour a day we could have interposed. He had a certain time to execute his contract, and if he did it within that time he fulfilled all of his obligations with us.

Mr. Enos: Do not you think it is your duty, as a State officer, upon all public works of which you have charge—and you must concede that that work is public work—do not you think it is your duty to see that the Constitution and law which says eight hours means eight hours, shall be constituted a day's work? What was that law passed for? What was it put in the Constitution for? Was it put into the Constitution to crowd men on public works to work twelve or sixteen hours a day? Was it not put in there for the express purpose of limiting the hours to eight hours a day? Was not that the object of it? That is the point; and you say now that it does not make any difference to you whether they work one hour, if they get the contract done. A. Precisely; and I do not see how that would conflict with the Constitution. I do not think that says that a man working on public works has to work eight hours a day.

Mr. Irwin: If Mr. English and his associates had found it to be compatible with their interest to work the men there only five hours a day, they had, under the Constitution and laws, a perfect right to work for five hours a day if they got through with the work as rapidly as their contract required, and fulfill their obligations with us, and there would have been no violation of the contract or loss.

Mr. Enos: Then, supposing they forced them to work fifteen hours a day? A. That would have been a violation of the law—that is, if they had forced them for a day's work. As I stated, I do not see that it is an adjudicated case. There is only one opinion of the Judge, who held that if a man chose to work extra hours for extra pay, it was competent for him to do it, and it was no violation of the law for the contractor to engage with them for such work. That is, to take an illustration that he uses, that if two dollars is the price of a day's work of eight hours, and he makes a contract with them to work two hours more, and he pays them fifty cents more, there is no violation of the law.

Mr. Days: There certainly múst be a violation of the spirit of the law.

Mr. Irwin: The Judge does not think so.

Mr. Days: When the people of San Francisco, to the number of thousands and thousands, compelled both Republicans and Democrats, in 1867, to put prominently in their platforms a plank in favor of an eight-hour law, their idea was that they would make a law limiting the day's labor to eight hours, for the purpose of procuring more work for more persons. That was the idea, and that really is the intent and spirit of the law; and I think that was the idea that General Grant and his legal advisers had when they decided that a full day's pay should be paid for eight hours' work. The idea I want to get at is this: that the intent and spirit of the law is to give employment to more laborers. Now, then, when the learned legal lights of the law decide that a man can, by giving more pay, employ a man a good many more hours, I say they, the Judges, violate the spirit of the law. And our purpose in seeking this investigation is simply to get at the facts, so that whatever is faulty in the law in that respect may be amended. Now, as to the point whether they employ men seven hours, or five hours, or one hour, or six, as long as they fulfill the contract, I do not think you have anything to do; but I think if they employ any man nine hours a day, they violate the contract, and the contract should be annulled.

Mr. Irwin: Now, as far as they violate the contract, do you go further and say the Board have the power for further action in the matter?

Mr. Days: No; I think you have explained that by reference to the decision of the Supreme Court. I am simply now speaking generally on the proposition. Of course, I do not see how you could do any differently under the decision of the Supreme Court, as I understand it, from your explanation, for the Supreme Court would probably step in again and overrule you. I am not finding any fault with you, after the statement in regard to the decision, because I cannot see how you could do any differently; but still I believe that, as far as the contractors themselves are concerned, that they are culpable.

Q. Before you let a contract, with whom do you consult with reference to the proper cost of the work? A. We have our Engineer make an estimate of the probable cost of the work.

Q. Who is the Engineer? A. Mr. Manson.

Q. You have your regular Engineer appointed by the Board? A. Yes, sir.

Mr. Enos: He is retained by the Board permanently, and his salary fixed by law? A. Yes, sir.

Mr. Days: Do you require the Engineer to place a value on the work required to be done prior to your receiving bids upon it? A. We have a general estimate made of what it will probably cost. The purpose of this estimate is to know whether we have or not sufficient funds, or will have sufficient funds, to pay for the work as it progresses, and pay for it when it is completed.

Q. Does the Engineer in placing the value of the work in the contract estimate the approximate price for labor on the eight-hour law? A. So far as that is concerned, I do not think he estimates particularly the labor. I do not think he would be able to go into that and arrive at any conclusion as to what the work would come to, if he undertook to get at it by labor at a number of days, etc. But we know generally, from what has been paid heretofore, that the contractors will put in a cubic yard of earth, or a ton of stone, for so much money; and that is taken as the basis of the estimate.

Q. Then you simply let the contract for the lowest amount of money to the lowest responsible bidder? A. Precisely; under advertisement.

Q. Without any relation as to how many hours they work a day? A. We do not consider that at all. It is the contractor's business to figure on that, and what the labor will cost him to do the work, and then give us the result.

Q. To do the work at eight hours a day? A. So far as that is concerned, we do not inquire anything about the estimate; that is none of our business. Whoever makes the bid has to accompany that by a certified check, that is forfeited to the State if he receives the contract and does not execute it, and give the necessary bonds within a certain time; and all we have to consider is whose bid is the lowest.

Q. And he knows, of course, that the law provides but eight hours? A. The presumption is that every citizen knows the law.

Q. Is any provision made in the contract for the care and maintenance of persons injured in the employment of the State; that is, by contract work? A. No, sir; we do not recognize the persons who are employed by the contractors as being employés of the State.

Q. In other words, then, you say it is really not State work, after you let it out? A. No, sir; we do not say that. In a certain sense it is not State work. The work is for the State, and in all such cases they come under the provision of this law, because that has already been adjudicated—that they come under the provisions of the law fixing the hours that constitute a day's labor. But, as I said, the relation is between the State and the contractor for this work, and the duty to work them only eight hours is put upon the contractor in the contract. The law itself provides that in making the contract a stipulation of that kind shall be put into it.

Q. Supposing a person should be injured in the performance of that duty, would not the State be responsible for the damages? A. No, sir.

Q. Only the contractor? A. I am not going to express any opinion as to what the liability of the contractor would be. That is a legal question entirely, and would depend whether he had taken proper care, etc. That is a nice little question that would have to be determined in every particular case.

Mr. Enos: If he was not guilty of contributory negligence the State would be responsible? A. I do not think the State could be held responsible in any case, and as to whether the contractor would be responsible would depend on the particular circumstances attending every particular case.

Mr. Days: Can you tell what is the advantage to the State in letting the work out by contract, over doing the same work by the day? Of course, we are merely asking for your opinion. A. That is a question of policy. The advantage, I suppose, in the judgment of the Legislature that passed it, was that the State would get the work done cheaper. I presume that is the cause.

Mr. Enos: You think as the law now stands it is best to let the work out by contract, rather than that the Harbor Commissioners have to hire the work done directly? A. That is my opinion.

Mr. Days: You never have examined the question, have you? A. I do not know what you would term examining it. It is one of those things that a man must necessarily have an opinion on when he is seeing the matter taking place all the time. My opinion is, that if the State wants to get its work done cheaply, the proper policy is to let it out by contract. There might be other considerations that would come in.

Mr. Enos: Do you think it would be for the best interest of the State and citizens? A. If you ask me that, and want my opinion, I will say yes. I can see no reason why the State, when it has work to be done of this kind, should not act upon the same principle as an individual, and I believe that the principles governing the letting of contracts in the community at large is best for the individual and the promotion of health. I do not believe in the State coming in to take charge of everybody.

Mr. Enos: Your opinion is based on the assumed fact that public officials, in letting these contracts, comply strictly and honestly with the law, and let them to the lowest bidder? A. I am assuming, of course, that they do what the law requires them to do, and here the State is simply doing what every citizen does. Of course, you cannot give the State officer the same discretion as a private individual has in transacting his own business. Here you have to govern them by the rigid rules of law, for here, if they had that discretion, while some men would use it wisely others would abuse it, and it would be difficult to say when a man had used it wisely, or when he had abused it.

Q. Have you any discretion, as a Board, in letting out these seawall contracts? Have you any discretion in the matter of saying which is the lowest bidder? A. The bid itself shows.

Q. You have no discretion? A. We have no discretion.

Q. And ever since you have been Harbor Commissioner that has been the plan? A. Both in letting contracts for the building of the seawalls, wharfs, or anything else. We have let it to the lowest bidder if we have let it at all. In some cases we have considered all the bids too high.

Q. What do you consider is a section of the seawall? A. That is in the discretion of the Board. A section is what we let at the time. Most of the sections have been 1,000 feet. There has been one at the extreme end that was only 561 feet, and the last section is only 800 feet, because we get a better place to finish it than to take it on further. The law says it shall only be 1,000 feet.

Mr. Days: You state that you suppose it would be for the interest of the State to let out work by contract the same as it is for a private individual. Let me put this hypothesis to you. Supposing a man wants a certain amount of work done and he has a family, a large portion of whom really could do the work, but they cannot do the work quite so cheaply as some one else. Would it be to his benefit to give to other parties the work to be performed and pay them and then support his family besides when they might be working?

Mr. Irwin: Supporting them in idleness?

Mr. Days: They doing nothing. A. I do not know what answer you want to that question; I do not see the pertinency of it, Mr. Days.

Mr. Days: I see the pertinency. I consider all the citizens of a State a portion of that State; and to protect the poorer portion of the people of a State is the reason for these labor laws. Every portion of the citizens being a part of the State, in my opinion it is not to the interest of the State to pay contractors large profits and to have their laborers paid small wages. I think it would be to the interest of the State even if they paid more wages to the employés, and that while, perhaps, it would cost the State a little more, it would be a great deal better for the State.

Mr. Irwin: What proportion of the labor in this State is employed or can be employed by the State itself?

Mr. Days: Not much; I do not suppose there can be much.

Mr. Irwin: Not a thousandth part.

Mr. Enos: How much money does the State, through the Board of Harbor Commissioners, pay annually to contractors for work done? A. This section of the seawall costs, I think, pretty nearly $170,000. I suppose the bulk of that is paid out to laborers. It varies a good deal from year to year. We pay out on an average, say $200,000 to $250,000. A large portion of that is paid for material, for instance, for lumber. The laborer that makes the lumber is employed in another State or Territory. The wharf cost $25,000; there would be paid to the laborers here on that not a quota of it.

Q. I suppose Mr. Days' idea is that instead of letting large contracts you do it directly; for instance, you pay $170,000 to Mr. E. and C. to build a certain section of the seawall. He pays his men and he puts $30,000 or $40,000 in his pocket. Mr. Days means that if you paid it out day by day, although it might cost more, it would be a benefit, as it goes to the men who put the bone and muscle into the work. A. Our experience as far as it has gone does not maintain such a supposition as that. Where we have had work done by days' labor it has cost more considerably, a hundred per cent more, than it does by contract; from fifty to a hundred per cent.

Mr. Wise: My experience while I was Supervisor here was that a contractor can get more labor out of a man at eight hours work than the State Government can possibly do. They loaf away a great deal of their time, which they would not do under a contractor.

Mr. Days: I think that is not fair, Mr. Wise, for nearly all the men who are appointed are appointed for some political influence or other. If you appoint the best men you will get the same work out of them.

Mr. Wise: That you cannot do. You have to appoint by influence of the political machinery. If you appoint men on the waterfront, you would have to get the men from the party that controls.

Q. Do you know when the State first commenced to do work by contract, or has it always been the case? A. The State has always, I think, done work by contract.

Q. Do you know whether they did before the eight-hour law was passed? A. Yes, sir, I think so. I think the State Capitol was built by days' labor, but public buildings, I think, generally have been let out on contract.

Q. I remember hearing it said, when the eight-hour law was passed, that it could always be obviated by contract. I did not know but that work had been done by days' labor before that time? A. The work on the city front by the Harbor Commissioners has always been done by contract. The theory of the law is that everything shall be done by contract, except such work as by the nature of the circumstances cannot be let by contract, and for that reason, from the first, the Board was allowed to spend a specified sum in urgent repairs. The meaning of urgent repairs is, for instance, something breaks down to-day and you cannot wait ten days for repairs. It must be commenced at once, and you put men on it, and in case of a breakage in the wharf, or anything of that kind, you have to make repairs at once.

Mr. Clark, Deputy Controller, here asked Commissioner Enos if outsiders were permitted to ask questions, and on being answered in the affirmative, asked the following: Governor, if I understand you correctly, you said that the State Capitol was built by days' work. Of course, you mean to be entirely correct, but you have forgotten that the roof was built by contract, and perhaps the only faulty thing in the building was the roof; it leaks.

Mr. Irwin: There may be some more things done by contract, but most of it was done by days' labor.

Mr. Days: If it is cheaper and better to let out the work for the State by contract, so that the laborers' wages can be ground down to the lowest notch, would it not be equally cheaper to let out the positions of Harbor Commissioners, and Judges and Mayors, Boards of Supervisors, Tax Collectors, Assessors, Governor, Controller, and every other office in the gift of the people, to those who will perform the labor for the smallest amount of remuneration. Did you ever give any thought to that, Governor? A. Oh, yes, I have thought about it; certainly. I recollect here, that there was some man wanted to be elected Tax Collector for a certain percentage; if they would elect him he would pay a certain percentage over to the city. I suppose that was something in the same line.

Mr. Enos: Do you think it would be financially practicable to run our government, municipal, city, and national, by letting the contract to the lowest bidder? A. Well, I am not in favor of it.

Mr. Days: You are not in favor of letting out government offices? A. No, sir.

Q. You do not think it would be for the benefit of the people to let the city and county offices to the lowest bidder, or to Mr. English or Chris. Buckley or any one else of the contractors and allow them to appoint officers and make a percentage therefor, as they let out the work, and let the city take the benefit of the difference between what it has to pay for labor and what the contractor pays? But you do think that laboring work should be done by contract? A. I suppose that it is a fact that competition to get a job will always secure the State in giving it to a responsible bidder. My idea is that competition secures the work for a lower sum than what we could get it if we employed men to do it, and upon that point I have no sort of doubt. As, for instance, building the seawall that was done by Mr. English and his associates. I do not know, I cannot say how they stand; I see it reported in the newspapers that Mr. English states in his testimony before the legislative committee, that that company had lost large sums of money in performing that contract.

Mr. Days: I did not understand him to say that. What I understood him to say was that they took the contract lower, expecting to put in a great deal more rock than they had to furnish, and hence lost in that regard.

Q. Now, supposing a man undertook to run the office of Assessor in this city, and took it on contract, don't you think he could do it a great deal cheaper than we have had it done for the last fifteen or twenty years?

Mr. Wise: I think a saving could be made without letting it to them. They have about one hundred and fifty men employed, and they can do it with fifty as well as they can with one hundred and fifty.

Mr. Days: Why could not these things be let out by contract, then, as well as laborers' work?

Mr. Irwin: I do not care to discuss that question. There are obvious reasons why the cases are not parallel, and the judgment of mankind so far, from the commencement of the world, have put them on different grounds, and it is not yet shown that the judgment is in error. I supposed I was called to testify more particularly in regard to facts than to discuss questions of this nature, that belong to political economy and social science. Of course it would be the mere opinion of an individual.

Q. Did you award to English & Company a contract for constructing a portion of the seawall? A. Yes, sir.

Q. Did Mr. English have any partners in the contract? A. I think the contract, if I recollect right, is awarded to Mr. William D. English alone. That is my recollection of it. The contract is not signed English & Company, but William D. English. I suppose he had gentlemen associated with him in the performance of the contract.

Q. What is the number of the section? A. We call it section five.

Q. Was he the lowest bidder? A. Yes, sir.

Q. The lowest actual bidder? A. He was the lowest bidder.

Q. Did Mr. English comply with all the terms agreed upon? A. So far as I know he did. I might modify that a little. The contract required that it should be completed within a specified time; its grade in the first instance brought to the grade, as it is supposed that the matter would settle a little. I think he was a few days behind the time. That is, it was not brought to the grade in the first instance within the precise time. It was a few days later. With that exception my former answer was correct.

Q. Did you accept the work and pay for it, or order it paid? A. The work has been done, but is not executed finally under the contract. It was required to be brought to the grade, the rock work and the earth work, on a certain day, and then it required to be maintained at that grade for a period of three months. Under the contract there were monthly estimates made of the work done per month, etc.; and we paid from month to month seventy-five per cent of that estimate, and the other twenty-five per cent was reserved as a guarantee for the final completion of the work; and there is still twenty-five per cent held against that contract waiting for the expiration of three months after the work is brought to the grade. If there is any sinking in the meantime, he has, under the contract, to bring it up to the grade, giving it three months in which to sink. You put it on a safe bottom, but it takes it some time to settle down.

Q. You are then satisfied that proper material has been used, and good workmanship performed upon the section named? A. I think the material was good, and the workmanship consisted in dumping the rock and dirt in the proper place. That was done under the direction of the Engineer, and I think it was all properly done.

Q. Are you aware that men employed had to work ten hours a day at the rate of $1 50 a day, some few receiving $1 75? A. No, sir; I am not.

Mr. Enos: Do you know what they received? A. No, sir.

Q. Or the number of hours they worked? A. No, sir; I do not.

Q. And you do not consider that relates to your duty, as Commissioner, after the contract is let? A. I do not think so.

Mr. Days: In case the contractors paid the wages of any laborer to the boarding house keeper, or any one else than the laborer, except on due process of law, would not the State be liable for the amount; I mean morally liable? A. I do not care about discussing the moral liability; I suppose this should relate to legal liability, and as to the moral liability I do not see how you are going to get at that.

Q. You get moral liability like this: The State morally owes John O'Brien a thousand dollars, but it does not legally owe him that, because there is no power to sue the State for it. It morally owes him a thousand dollars, and he goes to the Legislature.

The Witness: Give your instance. Let me say, so far as the laborers were employed here I do not consider, and did not consider, that the State owed them after it paid the contract.

Mr. Enos: Whether the contractor paid them or not? A. No; whether the contractor paid them or not. I do not discriminate between the moral liability and legal liability.

Mr. Enos: You recognize the fact that the State cannot be sued, as already stated. For instance, the colored man, Mr. Wilkins, lost his horse; he could not sue the State. The Legislature passed an Act authorizing your Board, as Commissioners, to pay him? A. I do not consider that as in the same category. Under the law this Board has a contract to perform the work which is let out to an individual. Then relations arise between that contractor and the men he employs. I do not consider that moral obligation rests upon the State, under the laws as they stand, to see that these individuals get their pay, any more than it rests upon the State to see if you hire a man and fail to pay him, that he shall be paid.

Q. You recollect the Hoagland contest, up in Sacramento, for years. The State did certain work, in which Hoagland and others were injured, and the Legislature at the last session authorized those injured to bring an action against the State. In that instance the

Legislature finally recognized the responsibility or right to make good the injury that was done by her agents in constructing certain canals or changing some river courses up there. Now, for instance, you let this contract to Mr. English, and he throws down a lot and building and the people living in it; he is working for the State? A. I do not consider that is a fact, that he did the work for the State; that makes the difference.

Q. Should not these people be paid for it? A. Not any more than if it had been done by anybody else. The State gave these people the contract. It is a contract to do the work for the State, and he goes there to get his material. Now, if he had contracted to do it for an individual the obligation would be the same, and the State is under no moral obligation any more than an individual. The fact that he is doing the work for the State does not make any difference in my opinion. The fact that he is doing the job for the State does not put the State under any further obligation than if you had had the same work done. He was not bound to go there for his material.

Q. Suppose the Harbor Commissioners, instead of letting this out, were doing the work themselves, and you went there and made this excavation, do you think the State would be liable for injuries? A. In that case I would occupy the same relation as the contractor would in this case. What the liability of the State would be for its officers doing the work I could not say.

Q. That question comes out in this investigation in one sense? A. I do not think the State is liable in that case any more than it would be if you had done some injury to these parties in getting out rock to fill up a lot for Mr. Hayward.

Mr. Days: Have you heard of any difficulty between the contractors and the parties living on Telegraph Hill in relation to the taking of rock therefrom and injuring the property of persons without paying them therefor? A. I think they had some difficulty. I heard it through the newspapers as it was going on, but I did not hear of it in any other way than through the newspapers and common conversation. It was never brought to us in any shape in any official way.

Q. You have just stated that you did not consider the State would be liable in any way? A. No more than if he had been getting that out to fill up Mr. Hayward's lot.

Q. Would not Mr. Hayward be liable? A. I don't think Mr. Hayward is liable; the contractor is liable. If he makes a general contract he is allowed the whole world to get the material. That is not Mr. Hayward's business; it is the contractor's business, and if he infringes upon individuals' rights he is liable. It seems to me that is very clear.

Q. Let us see: Here John Doe undertakes to build a house for William Smith, and he builds the house on William Smith's lot, but does not pay the employés. Should they come on the contractor, or the builder? A. The law, I suppose, gives the laborer a lien in such a case.

Q. What is the difference between this question of responsibility and the law for laborers' lien? A. It is not a question about laborers' pay, as I understand it, at all. It is a question about damage done for property owners, and that is a different matter. I am not saying that Mr. English and his associates are not liable for damages they have done. I presume, under the law, they are. What I say is, that the State is not liable, legally or morally, in my judgment. It did not require him to go there and do it. It let the contract to do certain work, and he had the whole world in which to get his material. The State did not control him in that. There were plenty of other places, and if he found it more advantageous to go there and get it, and take the risk of being mulcted in damages for it, that is his interest and not the State.

Q. Supposing Mr. English and his associates could not reply in damages, you do not consider, under any circumstances, the State would be liable? A. I do not think the State would be any more than if he went there to get it to fill up a lot for a private party.

Mr. Enos: You think there is no connection of responsibility with the State under his contract to do the work of the State? A. No, sir; I think not.

Q. You think that he stands in the same relation as if he were working for a private party? A. Precisely, unless the law has come in and specified and changed the relation. It has come in and changed it with reference to the parties he employs.

Mr. Days: How do you let the contract for work on the seawall, by weight or measurement? A. For rock, by weight; earth, by measurement.

Q. What check have you upon the contractors as to the amount of material used? A. We take the weight in case of rock.

Q. That is, you employ weighers? A. Yes, sir.

Q. Have you any check upon the weigher to prevent collusion between him and the contractor? A. Well, sir, I cannot say that we have any, except the integrity of the man. That sort of thing we have to trust everywhere. If the contractor and weigher and then the clerk who takes down the amounts, have been dishonest, and they have colluded to make false returns, I do not know that we could have any way of finding it out, unless it was so much as to excite our suspicions, and we could then locate it in some other way. However, the way the material fell off, being less than what was anticipated, rather refutes a presumption of that kind.

Mr. Days: I was just going to remark that we have not heard any intimation of anything of that kind as far as this work was concerned, but I have heard that there must have been considerable under some of the previous contracts.

Mr. Irwin: They did not take the rock by weight; probably the most of that result was the defect of measurement, though upon that I do not wish to express any opinion.

Mr. Enos: Does your experience justify you in letting a contract by weight or measurement? A. So far as rock is concerned, I would let it by weight.

Q. You think that is the safest and best for the State? A. Yes, sir, I think so, for if your agents are honest you get the exact amount. You attempt to get it by measurement, but the vacancies are often more than the spaces filled by the rock.

Q. But as to the dirt, what is the reason? A. The reason we have not weighed the dirt is, that after any rain a cart filled with dirt would weigh twice as much as at any other time. If we had a place where we could get the dirt at a uniform moisture all the time, we would take that by weight, also.

Mr. Days: You keep account of the number of loads? A. The number and size of them. We take that by the cubic yard. We have the size and capacity of the cart, and I stated distinctly why we measured that and do not weigh it is that the moisture varies from time to time, and so we deemed it impracticable to weigh it, but would prefer to weigh it if we could have it uniform in moisture all the time.

Q. Did the Harbor Commissioners let any contract to English & Co. to fill in any portion of the bay in Alameda County at the time they were contracting for the seawall? A. No, sir. The Harbor Commissioners have nothing to do with any portion of Alameda County. Our jurisdiction does not go outside of the waterfront within the County of San Francisco.

Mr. Wise: Colonel Mendell can give you the information on that point.

Mr. Irwin: They were delivering some rock from Telegraph Hill and Second Street. But that is a Government contract. I do not know whether it was English or Hackett, but some of those parties. When they were getting rock out of Telegraph Hill they were taking portions of it across the bay.

Mr. Enos: Do you know of anybody in the employment of the Harbor Commissioners and paid by the State that has any private employment with any other party in this city? In other words, do you know of anybody drawing a salary from the State who is in the employment and is receiving a salary for work from some corporation or private party? A. I do not think I do. I think some drawings have been made occasionally on Sunday in the Engineer's office for some mining company by Mr. Manson, but on that point I am not positive.

Q. I ask the question because I have been told there is.

Mr. Irwin: Do you know who the person is? I do not know of any such person.

Mr. Enos: I have his name somewhere. I wanted to ask the question, and to know all about it.

Mr. Irwin: If there is one receiving pay in that manner I want to know all about him.

Q. You have been asked about the "truck" system? A. I have answered that.

Q. Do you know a man by the name of John Gillan, said to have been engaged as fireman on the "Governor Irwin?" A. Probably I do; I could not say distinctly.

Mr. Wise: He is the one who took Ben's place.

Q. Does he draw a salary or pay from the State for services on the "Governor Irwin" as fireman, or in any capacity? A. I cannot answer that.

Mr. Wise: Yes, if his name is Gillan.

Mr. Irwin: We had a person employed by the name of Ben, and for certain reasons we discharged him, and there was another person put on there, probably his name is Gillan; he is fireman at night. I do not know whether his name is Gillan or not. He is probably the person whom you have reference to.

Q. It is represented to me that this man is drawing a salary from the State, and at the same time he is working for some corporation or private person, and drawing his pay. In other words, he is filling two capacities, one for the State and another for a private individual, and drawing two salaries. The name was given to me, and I took it down and want to call your attention to it. A. I think it is likely he is the person. He is doing service as night fireman in the place formerly occupied by a person named Ben. As to whether he has any other situation, I do not know.

Mr. Wise: All I can say in behalf of Gillan is, that when I got well I intended to recommend another man in his place, for I did not know him from a side of sole leather, and I asked the Captain about him, and he recommended him so highly that I took no further steps in the matter. He is not employed by any corporation that I know of.

Mr. Irwin: Since you have brought this matter up, let us assume that he is employed by somebody else, what is the consequence?

Mr. Enos: The charge made to me is that he is working for a private person, and is drawing pay from the State without rendering service to the State.

Mr. Irwin: That is not so. There is nobody who has a sinecure. If he is employed by a person, and the employment is outside of the hours that he has to be on duty for the State, how can we touch it? If the allegation is that he is receiving pay from the State, while he does not do any service, then I know that is not so.

Mr. Wise: Perhaps I might explain to you so that you can comprehend it. We are required by law to keep three men there at night—captain, fireman, and watchman; and these men have to stay there until the morning; and the fireman's duty is to keep up the steam in case of fire.

Mr. Irwin: The night fireman is required to be there from the time that the day force leaves to the time the day force comes on the following morning. The one who has succeeded Ben has been reported as being an exceedingly good man for his place. If he does work for some one else in the daytime, I do not know it.

Q. You see the object of my putting the question. You answer now, on reflection, that there is no one drawing salary from the State without he renders service therefor? A. There is not.

Q. And if there is any man employed there he is employed in hours when he is not required elsewhere? A. The night watch is there from the time the day watch goes off—from about half-past five to about seven the next morning.

Q. Have you any knowledge of any laborers, employés of the State, on the public works for the State, being interfered with in the exercise of the elective franchise? A. I never have heard anything of that sort.

Q. Did you yourself exercise any influence, or attempt to exercise any influence, or attempt to control any men in the exercise of their political rights? A. I have not, sir.

Q. Have you any knowledge of any such thing being done? A. No, sir.

Q. Have you any knowledge of anybody making assessments for political purposes? A. Upon that point I do not wish to be misunderstood. I think that the employés in the Harbor Commissioners' department, generally, last fall contributed something towards an election fund.

Q. Was it done by direction of the Harbor Commissioners? A. It was voluntary.

Q. Was there a certain amount marked down for a certain position that a man held, or did they pay what they saw fit? A. I think there was a general amount paid, according to the different positions that they held. That is my impression.

Q. Was there anything contingent on the payment or non-payment? A. So far as the Board is concerned there was nothing. They had no relation to it at all; but I am stating what I understand the fact to be. What you consider amounted to an assessment, I do not know.

Q. I understand there was no forced contribution? A. There was no forced contribution. A man contributed as he chose.

Mr. Days: How many rock weighers have you upon the roll of the State employés?

Mr. Irwin: Now?

Q. How do you employ them? A. We employ them when there is a necessity for them, when we are receiving rock; and during the time that Mr. English was building this section five we were receiving rock over three pairs of scales a portion of the time, and over one part of the time.

Q. Do they work by the day or month? A. They work by the month.

Q. Then of course you do not take into consideration the number of hours they work? A. We do not count them. We expect them to be there when the contractor commences sending his rock over, and they can leave when he quits, if it was half a day; or if they do not work, it made no difference, we paid them a month; but we expected them to be there whenever there was rock to be weighed.

Q. Did the Board ever lease, grant, or otherwise dispose of, for any period, any portion of the seawall, or reclaimed ground, claimed by the State, to any person, and if so, for what purpose? A. At the time this Board came in we granted what might be termed a lease to an old colored man, who kept what he called a coffee stand, and sold beer. After he had gone into business a short time, other parties, who were engaged in the same business in that vicinity, sent a protest against our letting it for such a purpose, and I believe they employed an attorney to come before us; and when we looked into the law closely, the Board came to the conclusion that we did not have authority under the law to let it for any purpose; and we gave him a reasonable time in which to move his house and give up the property.

Q. There is a large house. I think it must be on that section where in passing it in bad weather you have to step off and into the mud?

Mr. Irwin: Where is that?

Q. That is on the seawall. I do not remember which section it is opposite. I do not know who the man was, but I was going there with a friend one Sunday morning during the session of the Legislature, and some man there claimed you had either leased that, or authorized somebody to build it, and that it was a great nuisance. It was because of that I asked this question. I do not know anything about it. A. I do not know where it is, or what house you refer to. There is an old house standing on some land reclaimed. There was a building being removed by Major Conolly, or some other party, and they asked permission to stop it on some land belonging to the State, with the understanding that it was to be moved off in a short time to some private premises.

Q. Which street is that opposite? A. Down near Vallejo. And we granted that permission; and then afterwards, for some cause, they did not move it any further. I think they asked two or three times to be permitted to use it for some purpose, which was always refused; but I do not think it was in anybody's way. If that is not the house you refer to, I do not know what you refer to. I do not think that could have interfered with your travel at all.

Q. It did not interfere with me. I merely asked the question. I did not know what there was in it. A. I do not wish to evade anything. At present we have given to a fisherman, to one old man, the privilege of putting up a house, in which he boils the nets of the fishermen in some sort of liquid to preserve them. We have allowed another house to be built very close to it, for a man to mend boats, a necessity for them. These little boats get damaged, and they wanted to bring them up on the shore, to some place near by, to repair them. There are one or two more applications for houses to be put on land that has been reclaimed, for similar purposes, connected with the fishing business. I have favored granting these privileges, for I believed it was necessarily connected with that business, while I have opposed, since the matter was looked into, the letting or permission of carrying on any general business on the wharves. Probably there was a particular reason that affected this case.

Mr. Enos: Has there been favoritism to anybody, either in letting the contract or in letting the walls, that you know of? A. Only down here at the ferries wharf. We have granted and have continued permission to cripples to keep fruit stands.

Q. I don't mean that; I mean has any large corporation got any permission from you for anything? A. Not that I know of.

Mr. Enos: Let the cripples go; they have a right to go anywhere.

Mr. Irwin: They have it without paying any rent; they would have to be taken care of by the public if they had not such an opportunity.

Mr. Enos: Anything else, Mr. Days.

Mr. Days: Nothing else.

Mr. Enos: Mr. Wadsworth is here; you can ask him any question that you wish to.

Mr. Days: I do not think it is necessary; Governor Irwin has answered all the questions.

Mr. Wise: There is one thing that I can say—unless you want to put me on the stand—I corroborate all that the Governor has said, except where I made the indication at the time. As far as the agreement and contract business is concerned, the Governor has stated the actual facts.

Mr. Irwin: [Reading from contract.] "It is expressly stipulated that eight hours' labor shall be a legal day's work under this agreement."

Mr. Enos: We will put a copy of that contract in.

Mr. Irwin: There is a large amount of printed matter; these are the specifications.

Mr. Enos: The resolution under which I am acting, refers to this matter, and I would like to have a copy of the specifications and contract. "And it is expressly stipulated that eight hours' labor shall be a legal day's work under this agreement. All provisions of Chapter X, Title 8, of the Political Code, applicable thereto, are to be deemed as incorporated herein. No Chinese or Mongolian labor shall be employed on the work under penalty of forfeiture of the contract at the option of the Commissioners." There has been no Chinese on the work.

Mr. Irwin: Not that I have ever heard of.

Mr. Enos: You think, Mr. Days, that covers the ground?

Mr. Days: Yes, sir; everything we want.

Mr. Enos: Then we will send down to your office, Governor, and get a copy of this specification and contract.

Mr. Irwin: I do not know whether you asked the question, but I do not know anything as to whether these contractors worked their men over eight hours a day or not; that is a point I have no knowledge of, or what sort of an arrangement they made with them.

Mr. Enos: And you also answered that when you let this contract, that while you put into the contract that eight hours constituted a legal day's work, yet that did not enter into consideration in your letting this contract to Mr. English or anybody else?

Mr. Irwin: If he had refused it, no. But the law makes it our duty to put that in the contract. We prepared the contract, and if he had refused to execute it, we would have held it to be our duty to have it go in the contract.

Mr. Enos: When you let that contract to Mr. English, you did not compel, nor expect to compel him to work his men only eight hours a day; you were going to let him have his own way about that matter. He did not intend or mean that you were to control him as to the number of hours he ought to work his men? A. So far as that is concerned, the Supreme Court has decided that we could not bind him by a penalty; we could not put any penalty on him.

Mr. Wise: There is a penalty in regard to Mongolian labor, that the contract should be forfeited.

Mr. Enos: I believe that is all, Governor. We are much obliged.

Mr. Wise: You do not want to put me on the stand?

Mr. Days: No; the Governor has answered all that is necessary in this investigation of the Commissioners.

Mr. Enos: I wish you would make some inquiry as to Mr. Gillan.

Mr. Irwin: On what point? Do you hold that if he has some employment in the daytime, we are prohibited from employing him?

Mr. Enos: No, sir; I do not. I agree with you. The way it was presented to me was, that he was drawing a salary from the State, and at the same time he was drawing this salary; he was drawing a salary from a private party, and that he was neglecting his duty.

Mr. Irwin: So far as neglecting his duty to the State was concerned, I know all about that now that I could know, if he is the man. If we employed him at all it is in Ben's place, and he is night fireman, and I know he has performed his duties well, because I have been informed so by Colonel Lucas, who has charge of that especially; and the officers on board the boat have stated that he is a good fireman, and the amount of coal used has been diminished a great deal since he was in there, so that on that point everything is just as clear in my mind as could be with any amount of inquiry. But if, while he discharged his duty faithfully to the State, you do not hold it to be our duty to look after him outside of that, there is no use looking into that matter, because he is there during the time, and has discharged his duties properly, for we cannot get on without him a night or an hour. He has to be promptly at his business.

Mr. Enos: If I hire out to you eight or nine hours a day, and I perform my duty, I have a right to go to Mr. Days or anybody else, and hire out three or four hours. I think that is proper. I think, if the charge was true, it was a reflection on the Board of Harbor Commissioners, and it was my duty to call your attention to it.

Mr. Irwin: If he was being paid without rendering services; but he has rendered the services, and very acceptably, if he is the man.

Mr. Wise: I will find out what the man does in the daytime. He works there from five o'clock in the evening to seven o'clock in the morning, and stays on the boat, as, whenever there is a fire, he has to go with the boat.

Mr. Irwin: Steam has to be kept up for the boat, to go immediately when the bell is touched. He has to be there. A half hour's absence might be serious, and unless there was some excuse for it it would be sufficient cause for dismissal. It is one of those places where a man has to be there all the time.

At this point the further hearing in this matter was adjourned until Monday evening, May 25, 1885, at 8 o'clock.

San Francisco, May 25, 1885.

This day the further hearing in this matter was continued until June 1, 1885, at 2 o'clock p. m.

San Francisco, June 1, 1885.

John Hackett.

Called.

Mr. Enos: What is your name? Answer—John Hackett.

Q. What is your business? A. I am principally in the dredging business, sir.

Q. Are you connected with Mr. English in this contract in building section of the seawall No. 5? A. Yes, sir.

Q. In what connection? A. I am one of the principal parties in that contract.

Q. I see by the contract that your name is not attached; are you a partner of Mr. English? A. Yes, sir, in that work.

Q. Who are the parties? A. There is Mr. English, Mr. Schuyler, Mr. Wagner, and myself.

Q. This contract bears date twentieth of February, 1884? A. Yes, sir, I believe so; Mr. Schuyler has a copy of the contract.

Q. Is this section of the seawall completed according to the terms of that contract? A. Yes, sir.

Q. And accepted? A. No, sir; it is not to be accepted until the seventeenth of this month. After it was completed it was to run ninety days before being accepted.

Q. When was it completed? A. The seventeenth of March, I think it was. Mr. Schuyler, I think, can tell you that.

Mr. Schuyler: Yes, sir, about that time.

Q. I see by the terms of the contract that it was to be completed in twelve months. Did you have extension by the Commissioners? A. A few days. I do not know how many days we ran over; kept sliding in at the outer end of it and it took us several days after the time was expired to build it.

Q. Have you drawn your pay according to the terms of this contract? A. Yes, sir.

Q. Is there twenty-five per cent retained by the Harbor Commissioners? A. Yes, sir.

Q. And still unpaid? A. Yes, sir.

Q. Can you give me the number of men employed on that contract? A. I cannot do that, but I think Mr. Schuyler can; he had the management of the work.

Q. You have no correct record? A. No, sir, I have not myself; I paid little attention to that; I think Mr. Schuyler has got the record.

Q. Who was the principal man who oversaw the work? A. Mr. Schuyler, sir.

Q. Who hired the men? A. I think Mr. Schuyler and the foreman he had under him.

Q. What is his name? A. George Gray.

Q. Do you know the terms under which the men were employed? A. I think I do; yes, sir.

Q. Please state what you paid them per day, and what hours they worked. A. We started in, as I remember it now, to pay them $1 75 a day.

Q. Did you pay them $1 75 a day? A. We did for several months.

Q. How many months? A. I would have to look at the books to answer that question. You had better question Mr. Schuyler on that, because he knows the details.

Q. You started in to pay $1 75 a day? A. Yes, sir.

Q. And you paid them for several months $1 75 a day? A. Yes, sir.

Q. How long did that continue? A. I think that continued right up to harvest time, when some of the men left; all those that stayed with us steady we paid them right through the job $1 75 a day, and those who came back we paid $1 50.

Q. What proportion of men did you pay $1 50 after that? A. It is a very small proportion; I do not remember just the number, but I think Mr. Schuyler has the details, all taken from the books.

Q. How many hours a day did they work? A. They started in at seven and worked to six, I think, most of the time, and took an hour at noon. When the days got short the hours were changed, but they were the same number of hours.

Q. They worked ten hours a day? A. Yes, sir.

Q. That was the contract when you hired the men; that they were to work ten hours? A. Yes, sir.

Q. Where did you get the material for the construction of this seawall? A. Most of it was taken out of Telegraph Hill, right opposite the section of the seawall.

Q. You say the most of it; what proportion of it? A. Ninety per cent, I suppose; all of ninety per cent, possibly a little more.

Q. Can you tell me of what lots or streets this rock or dirt was taken from? A. It was all taken from Telegraph Hill, between Filbert and Green Streets—that is two blocks, Filbert, Union, and Green; a great deal was taken off of the street—that is a considerable amount of it.

Q. A good deal was taken from private lots? A. Yes, sir; there was some taken from private lots, and some taken from our own property.

Q. What proportion of this ninety per cent of rock and dirt that was consumed in constructing that section of the seawall was taken from private property? A. Well, I could not tell that, sir; I do not know anything about that.

Q. Who would be the party to give me that information? A. Mr. Schuyler, I think, can give you the details of that.

Q. Can you give me the names of the persons who had private property there that was taken or injured by the construction of the seawall? A. I could not do that—not right now; but we have got the whole account and data of that, and I think Mr. Schuyler can give you that also.

Q. Did you have anything to do, or do you know anything in relation to the men that worked there being boarded at any place or places? A. I know they boarded at a couple of places there.

Q. Were they confined at any place? A. No, sir.

Q. What place did they board at? A. They boarded at Gercke's, right opposite, between the work and the hill, and some of them boarded down at Kerwin's.

Q. Do you know why they boarded there? A. The only reason why is that the boarding houses were convenient there, and they went to those places.

Q. Have you read the resolution which says that it has been alleged that there was some interference or dictation in controlling these men as to where they selected their place to eat and sleep? A. I saw that.

Q. Was anything of that kind done by anybody connected with the construction of the seawall? A. No, sir; nobody.

Q. Do you know whether any commission or percentage was given to any boarding house? A. I don't know anything about it, sir; we were not aware of it; the people interested in doing that work have no knowledge of that whatever.

Q. You have no knowledge of it? A. None in the world, sir.

Q. Have you any knowledge or information in relation to anybody being influenced in political matters? A. None in the world, sir.

Q. Or any one connected with the construction of section five of the seawall? A. I do not think I tried to influence anybody; I do not believe I spoke to a man at that election anything about it; I do not remember having any talk about politics.

Q. Do you know of anybody connected with the construction of the seawall that did do so? A. I do not know of it; no, sir; no one connected with it had anything to do with politics, in one way or the other; I do not know that it has been talked of around the work; if there was anything done amongst the men, I know nothing about it; I live across the bay, and would go home every evening; our views were to leave politics alone; there might have been at election politicians running around among the men.

Q. My question is directed to those who were employed there, either directly or indirectly, in the construction of this seawall? A. I would like to give you all the information I possibly can.

Q. You, of course, have read this contract? A. Yes, sir; but it is some time ago since I read it.

Q. You say it was expressly agreed that when you hired these men they should work ten hours a day? A. Yes, sir.

Q. That is a condition upon which you hired them? A. Yes, sir.

Q. And that you are a party to this contract? A. Yes, sir.

Q. That is, interested in it? A. Yes, sir.

Q. Now I call your attention to this section of the contract, and ask for your explanation of it: "It is expressly stipulated that eight hours of labor shall be a legal day's work under this agreement, and provisions of Chapter X, Title VI, of the Political Code of California, applicable thereto, are to be determined as incorporated herein." Now, you bound yourselves to live up to that contract—this is public property for the State? A. Yes, sir.

Q. These men were doing this work for the State? A. They were not doing it for the State, they were doing it for us.

Q. You are doing it for the State? A. Yes, sir.

Q. It is public work? A. Yes, sir.

Q. Now, how do you reconcile the fact that you hired these men on the condition that they should work ten hours upon this work for the State? A. I do not consider the State had anything to do with it after it went out of their hands.

Q. But you signed this contract? A. Yes, sir. We discussed the question at the time.

Q. Who with? A. With the Harbor Commissioners and their attorney.

Q. That is what we want to get at? A. I will give you all the information I know anything about.

Q. Who is their attorney? A. Mr. Coogan. When that contract was let I objected, being an interested party, to this provision.

Q. But the Harbor Commissioners were bound by their oath? A. I will explain what took place there at the Harbor Commissioners. I wanted it stricken out for the further reason, that we could not do that work on any such condition as that; and they and their attorney said it only had effect upon men hired by the day under their jurisdiction, and did not affect our hiring the men at all, and it was let go at that. That is all the conversation that took place—the drift of it.

Q. Who stated that? A. The Commissioners and ourselves were discussing that, and Mayor Bartlett was there.

Q. Was Governor Irwin there? A. Yes, sir.

Q. Did Governor Irwin make such a statement? A. I think so; the whole thing was discussed amongst us.

Mr. Enos: Then the substance of what I gather from your testimony to this question is, that it was understood between the contracting parties, the Harbor Commissioners who signed this contract and yourselves, that this was simply put in there because they were obliged to put it in; but it was inoperative, null, and void? A. It was a matter of form; I believe that is the way it was discussed that day.

Q. Would you have made this contract if there had been no such arrangement—verbal arrangement—made with the Commissioners? A. I do not know as to what I would have done. There is one thing, we would not have taken the work to have done it with those hours; as to what might have been done, I do not know how I might have acted, but I called their attention to that matter because I was interested in the contract. We discussed the question amongst us, and it was claimed there, I think, by all the Commissioners, and I think by their attorney, that that had no effect so far as our contract was concerned.

Q. Was Mayor Bartlett present at that time? A. I think so.

Q. George Stoneman's name is here; was he there at that time? A. I think he was there.

Q. Did he assent to any such proposition? A. I do not know; I think the three Commissioners did whatever talking was done. I do not think he did any talking, but Mayor Bartlett did.

Q. There is another clause in the contract which says no Mongolians shall be employed? A. We did not hire any Chinamen.

Q. No Chinamen worked there? A. Not a solitary Chinaman had anything to do with that work, one way or the other.

Q. Have you paid a man less than $1 50 a day for work on the seawall? A. No, sir, not to my knowledge; in fact, I am sure. Mr. Schuyler knows the details. He kept the accounts and did all the hiring. I am satisfied there was no one paid less than that, and a very small percentage paid that. We had a good class of men to start with and we kept them through. We could have procured men at any price we might name, but we thought it better to get good men for the job.

Q. Could you give me the names of parties who owned property there? A. I could not now, sir, but we can get those names for you, all of them.

Q. Have you had any difficulty or threatened difficulty with any parties? A. There was some fussing going on there almost all the time that work was being done.

Q. You say some of the private property has been taken? A. I will explain that; in opening that street where a mountain is taken down like that, it slides, and of course that private property was injured to a very great extent.

Q. That property so injured of course was taken to put in the seawall? A. It was taken in cutting the street open. The Supervisors gave us permission to open Sansome Street, from Filbert to Green.

Q. Have you the conditions here upon which you were to open the street?

Mr. Schuyler: It was simply by resolution.

Mr. Hackett: We owned considerable property there, and we got a majority of the owners of property there to sign a paper to have the street opened.

Q. This property was put in the seawall, was it not? A. Yes, sir, that was put in the seawall.

Q. And in making these blasts you injured and destroyed that property more or less? A. Yes, sir; we knocked it down in opening that street.

Q. Did you destroy any houses? A. Yes, sir, there were two or three houses; there were two houses on the line of that street.

Q. Did you make purchases of any private property that was injured? A. No, sir.

Q. Have you made any settlement with the injured parties? A. No, sir; no settlements. Mr. Schuyler will explain those details to you better than I can.

Q. Do you know anything about any of your men that you have employed there, in relation to trading out their wages, going to any particular place to trade out their wages? A. I do not know anything about that.

Q. You paid them their money? A. On the fifteenth of each month we paid the men.

Q. You received no orders or gave no orders of that kind to any particular place? A. No particular place, but I think there were some orders brought to us and were accepted, but we did not have any place of our own to pay them off at.

Q. Did you make any payments by way of orders? A. I think very few; some men would dispose of their order to somebody else; I do not know much about that detail, but I think there was very little done. Our regular payday was the fifteenth of the month, and we paid everything then.

Q. Your general payments came on the fifteenth of each month, and that was in money? A. That was in money; yes, sir.

Q. And you have no knowledge of any orders that were given to any particular place? A. We did not have any place.

Q. Do you know anything about the truck system? A. No, sir, I do not know anything about that.

J. D. SCHUYLER.

Called.

MR. ENOS: Are you one of the partners of Mr. English in the construction of this seawall? Answer—Yes, sir.

Q. What interest have you in it? A. I have a small interest.

Q. How many are interested in it? A. Four.

Q. Can you state the interest you have?

MR. HACKETT: Don't you think this is inquiring into private business? Of course, we wish to assist you all we can, but it seems as if this was going into private matters.

MR. ENOS: The resolution says: "That the Commissioner of the Bureau of Labor Statistics be and he is hereby requested to inquire into the condition of the laborers employed by the contractors on the seawall, at San Francisco, with reference to whether what is known as the 'truck' system is in vogue there; whether or not the eight-hour law applies to contracts let by the State, and whether or not such laborers are interfered with in the exercise of the elective franchise, and with reference to such other matters as may affect them and other laborers employed by the State Board of Harbor Commissioners, and all the suggestions set out in this report, and report the same to the Governor at as early a date as is consistent with a thorough investigation thereof."

MR. HACKETT: We do not object to it at all.

MR. ENOS: But for this reason I think it is proper that my report should show to the Governor who really are the parties to this contract. There has been damage done to private property, and the question will arise: Who is responsible, if anybody—whether the State, through her delegated agents, has the right to build seawalls and destroy private property? That is one of the reasons why I ask that question. You claim that by authority of a resolution of the Supervisors you can go and grade certain streets, and in doing that work destroy property of private citizens, and put that private property into the seawall, and the State pays the contractor for doing this work, and for the material they take and destroy. Now the question comes up, whether it is not my province to find out who the men are in doing it; whether it is not my province as Commissioner to make this investigation?

MR. HACKETT: We are willing to tell you that, but I think it is hardly necessary to go into details. If we destroy any property we are responsible for it.

MR. ENOS: Mr. English, Mr. Schuyler, Mr. Wagner, and Mr. Hackett are the only parties interested in that contract?

MR. HACKETT: Yes, sir.

Q. Mr. Schuyler, can you give me the number of men that were employed in the construction of that seawall? A. The number varied from day to day, from the time we commenced until we got through. We would sometimes have three hundred men, sometimes two hundred and fifty, and sometimes two hundred.

Q. Well, the highest number that you employed? A. I do not remember, but I think it was nearly three hundred; perhaps two hundred and eighty-five or two hundred and ninety.

Q. Can you give me the date of the commencement of the work on the wall? A. Twentieth of March, 1884.

Q. Can you give me the price that you paid your men? A. We paid them $1 75 for ten hours work, from the beginning of the work until the first of September, when I gave instructions to the foreman that all new men that were hired should be employed at $1 50 for the same number of hours. A great many men were applying for work, and there were a great number of laborers out of employment, and we wanted to put on as many as we could, both to finish the work rapidly and to give employment to poor men who were begging for it. We could not afford to pay a great number of men a larger price, but the men who remained with us all through the work we paid $1 75 until we got through.

Q. You started in by paying certain men $1 75 a day for ten hours work, and you continued to pay these men up to a certain time; how many men do you think continued working at $1 75 all through the job? A. The larger proportion of them; from ninety per cent, and the very smallest percentage of all was about seventy per cent of all the men, at all times, who were paid from $1 75 upwards. That is the least that was paid.

Q. Did you pay more than $1 75? A. Yes, sir.

Q. How many men did you pay more than $1 75? A. There was quite a number who received more than that.

Q. What proportion, and in what capacity did they work? A. Experts in drilling.

Q. I mean common day laborers. A. Blacksmiths, carpenters, foremen, and so on.

Q. When I say $1 75, I mean these common day laborers, that was your highest? A. There were no day laborers paid over $1 75.

Q. Do you say that during this entire work, that seventy per cent of all you employed received $1 75 for ten hours' work? A. From seventy to ninety per cent, after the first of September, when we made a reduction.

Q. What per cent still received $1 75? A. From seventy to ninety per cent still received $1 75. We made no reduction in the wages of those who remained with us from the beginning.

Q. What percentage of men did stay with you from the time you commenced until you finished the job? A. I think probably three fourths; from one half to three fourths of all the men were with us all through the work.

Q. And the balance you paid $1 50 a day for ten hours' work? A. Yes, sir.

Q. Do you know anything about any parties being compelled or solicited to board at any particular boarding house? A. I do not.

Q. Do you know of any parties that were compelled or solicited to trade out, or take what is known as truck for their wages? A. Nothing of the sort.

Q. What was your custom? A. When we first began the workmen came to us to know where they were going to board—those who had no families; but the largest proportion were men who had families, and who lived in the vicinity, and did not have to board at a boarding house; but men who had no families came to us to know where they were going to board, and we told them to board where they pleased; and they would ask us to act as their security at these boarding houses. For the convenience of the men, and for the purpose of having them there, we were obliged to give that security to these boarding house men, in order to retain the laborers there. We would simply tell the boarding house men that the man was working with us, and we would see that he got his pay when it was due for the board. We did this at the request of the laborers themselves.

Q. Did you settle with the boarding house keeper, or did you pay the men and let them settle? A. No; we could not guarantee the boarding house keeper and pay the men themselves.

Q. You first saw the men for whom you went as security and found out if you were justified in paying them the balance? A. Yes, sir.

Q. Do you know of anybody connected with the construction of that seawall that has ever received any commission from any of these boarding house keepers? A. I did not at the time, but have heard rumors since that there was work of that kind carried on by some of our foremen. If I had known it at the time they would have been discharged at once. We did not countenance or permit anything of that sort.

Q. When did you find that out? A. After the work was finished, and the men had liberty to speak; then they talked.

Q. But until your men had performed the work for you, and after they had been discharged and paid off, then it was that you heard the first intimation of this? A. Yes, sir; that there had been anything of that sort; I do not know that it was to any great extent; there may have been one or two foremen who had their favorites.

Q. Who were those foremen? A. I have no positive evidence of any of them, but it has been rumored and stated to me by different parties.

Q. You received information that certain foremen in your employ had been guilty of this thing, or had been doing this? A. Yes, sir.

Q. Who were they? A. I do not know that it would be just to them to give their names until I have positive proof of it.

Q. I want to bring them before me and question them.

Mr. Schuyler: I will give you the names of the foremen and let you examine them.

Q. Please give me the names?

Mr. Schuyler: Our principal foreman was George Gray; the next was O. D. Patch, Titus, Jack Leopoli, Pat Carroll, Henry Hern, Thomas Barry, Phillips, Emanuel Josephs, that is all I can recollect.

Q. What were the duties of these men you have just given as your foremen? A. Mr. Gray's duty was that of general foremen over all the work; laying out the work, and directing each of the gangs in different departments; and the sub-foremen were put over a gang of twenty or thirty men, directing the work as it was marked out for them.

Q. There were different gangs of men in different departments of the work? A. Yes, sir.

Q. How were they connected with the boarding house keepers, in any way? A. I do not know how it was done.

Q. You do not know anything about it? A. If it was done, I do not know.

Q. You had no knowledge of it? A. Not the slightest.

Q. You had no knowledge that it was being done, if it was done at all? A. Not the slightest intimation of it at all; if the men had complained to me of anything of that sort I could easily have remedied it.

Q. There were no complaints of anything of that sort? A. No, sir.

Q. Can you give me the names of all the property owners that have been interested or affected in any way by your construction of that seawall? A. I do not think I have them here; but I can give you the most of them.

Mr. English: What has that to do with the labor organizations, Mr. Commissioner?

Mr. Enos: It seems by this resolution that it is a pretty broad resolution.

Mr. English: I do not think the Legislature can pass a resolution to go into a man's private business. I thought the object was to find out the status of the labor question in reference to building seawall in the State of California.

Mr. Enos: The resolution says, in addition to the labor question; it seems to be pretty general in its character in relation to the construction of that seawall.

Mr. Hackett: If we are to go on and state everything connected with our business we might give our own case away, if there was any case against us.

Mr. English: We will give all the information that is connected with the building of that seawall, but I do not think it is anybody's business as to the private affairs connected with that seawall. The Legislature might pass a resolution to go into a man's mercantile house and find out how many goods he has.

Mr. Enos: This is State work.

Mr. English: The State has nothing to do with these people who are interested in the property.

Mr. Enos: I do not know about that; I am not so clear on that question. There may be a liability attached. This private property has been taken for State purposes and put into the seawall, and private parties should be compensated in some way. I think that if I owned a lot there and you should come in and ruin my property, I think somebody ought to pay me for it.

Mr. English: What has the Labor Commission got to do with that?

Mr. Enos: It says: "And all the suggestions set out in this report, and report the same to the Governor at as early a date as possible."

Mr. English: What has this Commission to do with that business? We are perfectly responsible to the Courts for any damage done there.

Mr. Enos: I have no doubt about your responsibility, but of course if you do not desire to answer these questions it is your privilege.

Mr. English: I do not see the bearing of those questions on the labor organizations. I supposed this investigation was for the purpose of finding out the status of the labor question, and finding out something that would improve the labor condition of the public works of the city.

Mr. Enos: That is the main object and purpose.

Mr. English: Then we have no right to answer these questions about our private business. You might as well ask me about my balance sheet, and how much money I made on this seawall. If we have damaged the property of any individual we are responsible for that damage. If we violate the law we are responsible for such violation.

Mr. Enos: The Legislature at the last session empowered people to commence action against the State for injury to their property; in constructing certain canals they changed the bed of the river and swept away homes. They ought to be compensated. Ought not the State to keep harmless private parties?

Mr. English: The laws of the State govern that. If I go out and tear down a man's fence or injure his lot I am responsible for it.

Mr. Enos: But suppose you act in the interest of the State?

Mr. English: We are acting for ourselves, and we had nothing to do with the State. We agreed to take this contract, and to do that work for a certain amount of money, which we did. We have nothing to do with the State at all.

Mr. Enos: You do not wish to go into that, Mr. Schuyler.

Mr. Schuyler: I have a diagram here showing the names of all the property owners, taken from the records of the Assessor, and, if you wish, you are at liberty to copy it. These are all the property owners facing Sansome Street, on the west side, between certain streets.

Q. Were you present when this contract was signed? A. I was not.

Q. You have read this contract, of course? A. Yes, sir.

Q. You are a party to it, and interested in it? Did you hire these men, or have a voice in hiring these men to work? A. I did.

Q. All of them? A. I generally left it to the general foreman, Mr. Gray.

Q. You were consulted in reference to hiring the men? A. Yes, sir.

Q. Was it a condition that they should work ten hours a day? A. That was the time set for them to work.

Q. That was the condition upon which they went to work, and received their $1 50 or $1 75? A. They worked ten hours for $1 75.

Q. Were you present at a conference with the Harbor Commissioners when this section of this contract was talked over, and when it was expressly stipulated that eight hours should be a legal day's work? A. I was not.

Q. You have heard Mr. Hackett testify in relation to that? A. That was my understanding of it at the time. They told me of the interview afterwards, but I was not present.

Q. You understood that the Harbor Commission and their attorney had waived that clause in this contract? A. That was my understanding. They had considered that it was of no effect; and if we chose to hire men by the hour, and employ them for sixteen or twenty hours a day, we could do so, and it was only a question between the men and ourselves.

Q. The view you take of it is, that this work is done for you, and not for the State? A. Precisely. If we were to go and do it by machinery there would be no one concerned in it at all.

William D. English.

Called.

Mr. Days: Mr. English, your statement to Mr. Enos is not in conflict with my idea of the affair; in fact, all I have to do with this investigation is, simply to get at the facts in relation to the labor question. And on this question, I will state, that during thirty-eight years in England, there were two hundred and sixteen Commissions appointed by the House of Lords to examine parties in relation to the labor question; not particularly to find out whether they had been doing anything wrong, but to find out simply the status. And while I understand a great deal of your position, a great many questions here are not asked to find out if you have done anything particularly wrong, with a view to punishment, only what has been done. Answer—I understand the motives that prompt you.

Q. Did you contract with the Harbor Commissioners to build section five of the seawall? A. I did.

Q. How much did you contract to do the work for? A. The contract will show: that really has escaped my memory. I think the aggregate was about, within a few hundred of $223,000; that was to have been the amount. That was the contract price for doing this work, $223,000, approximately. It may be a few hundred dollars one way or the other.

Q. How much has been accepted and paid for? A. The whole has been accepted. They reserved twenty-five per cent of it—about $42,000—for ninety days, to see that the work was satisfactory. The whole amount paid was about $169,000. It fell short about $52,000 or $53,000.

Mr. Enos: What do you mean by falling short? A. Of the quantity required; it does not come up to the contract.

Q. The contract specified so much for every ton of rock, and so much for every yard of dirt, and the estimate you mean fell short of the Engineer's estimate? A. Yes, sir.

Q. The Engineer estimated it would take $223,000 to pay for it, according to that contract, and the amount of stone and dirt required fell short of it? A. Yes sir; $55,000.

Mr. Days: Did you sublet any part of the contract, Mr. English? A. No, sir; we did not.

Q. Did your partners? A. The wharf was built by wharf builders. We did sublet that portion of it.

Q. You sublet the wharf? A. That is all: yes, sir.

Mr. Enos: There is a clause there about $29,000; was that included in the $223,000? A. Yes, sir; that was included in the $223,000; that was for building the wharf.

Mr. Days: How many men did you employ? A. You will have to get that from Mr. Schuyler; I know nothing about the details of that work. I simply attended to the financial part of it.

Q. You do not know how many gangs were there? A. No, sir; I did not go down to the work but three times during its progress.

Q. You do not know how many foremen you had? A. I do not know anything about it.

Q. Did you keep a roll book of the men? A. Yes, sir; we had a timekeeper who attended to that business.

Q. Have you that book with you? A. No, sir; I have not.

Q. Do you know what wages you paid your foremen? A. No, sir; I do not. Mr. Schuyler will give you all that.

Mr. Schuyler: We paid our foremen from $2 50 to $3 a day—principally $3.

Q. How many gangs of men were they divided into?

Mr. Schuyler: According to the amount of work they were doing. As the organization developed we increased the number of gangs; I think there were five or six.

Q. You had a foreman to each? A. Yes, sir.

Q. Then, those were the names of the foremen you gave? A. Yes, sir.

Q. The contract being with the Harbor Commission, the work performed was State work, being for the State, was it not?

Mr. English: Yes, sir; public work.

Q. Were the wages paid by you the highest standard for such labor? A. I do not know; we could have gotten any number of men, I suppose, for the wages. We had to refuse every day twenty-five or thirty men employment.

Q. You could have got them for less? A. I suppose we could have got them for less.

Mr. Days: Where did you get the material from? A. Telegraph Hill.

Q. Is Telegraph Hill public or private property? A. Private property.

Q. In making your estimates for the contract did you calculate upon purchasing private property? A. We did.

Q. Did any difficulty occur between you and any of the persons living upon any part of Telegraph Hill as to the taking of rock and dirt from their premises; if so, what was the cause? A. Mr. Schuyler will have to answer that question. I do not know anything about the details of that work. Mr. Schuyler and Mr. Hackett came into contact with those people and made those arrangements. We bought some property and agreed to grade other lots, and we bought rock from some of the property owners there.

Q. Were you authorized to grade any of the streets upon Telegraph Hill; if so, by whom? A. By the Board of Supervisors, to grade Sansome Street.

Mr. Enos: Can you give us the date of that resolution, passed by the Board of Supervisors?

Mr. Schuyler: I think that was May 27, 1884—No. 17,112.

Q. What was the height of the hill above the grade—the perpendicular height which you reduced the hill on this street?

Mr. Schuyler: From 110 to 150.

Q. Is it that high? A. Yes, sir.

Q. Were all the property holders on the line of the street in favor of cutting down the hill to the official grade?

Mr. Schuyler: I do not think they were: the majority of them were, however.

Q. The majority in ownership of frontage?

Mr. Schuyler: Yes, sir. The Supervisors gave us the privilege.

Q. If you cut through the official width at the top of the hill on the street, could you keep down to the grade a uniform width without injury to the property on either side, or danger to the lives of the residents? A. You could if it was the right sort of material. It depends altogether upon the material.

Mr. Enos: Well, the material you found there? A. The material we found there would not stand up perpendicular. It could not be cut down perpendicularly; there would be a slope.

Q. Did you blast the rock when hard, so as to facilitate the work? A. Yes, sir.

Mr. Days: Is the work of cutting down Telegraph Hill in any way dangerous for the men employed? A. All that kind of work is hazardous.

Q. In blasting did you put in powder to scatter it, or simply to break the rock? A. Nothing more than to break the rock—loosen it.

Q. What precautions did you use for the safety of your men? A. We got them out of the way when a blast went off.

Mr. Enos: Did you take any other precautions? A. We had men stationed at all points of ingress and egress to the quarry, to keep people from coming there while the blasting was going on.

Mr. Days: When the men were working at the bottom of the hill? A. That was a part of the duty of the foreman, to watch to see if there was the slightest danger, and give warning.

Q. Were any of your men disabled by accident while upon this work; if so, how many? A. Quite a number were injured, but none seriously; none permanently injured that I have heard of.

Q. What provision did you make for those injured, as to care and maintenance, if any? A. We assisted a few of them; we generally gave them some little assistance—got them to the hospital.

Q. Do you think that where men are employed in dangerous occupations their employers are under any moral responsibility for their safety? A. I should think so. I think the employer should throw around them every safeguard in the world to protect them.

Q. Of course you did that in the case of instructing your foreman to do it? A. Yes, sir; we did all we could to prevent the men meeting with accident.

Mr. Hackett: That is a very important part of the contractor's work—to look out for that.

Mr. Days: In your opinion, should employers be held legally responsible for accidents occasioned through carelessness on their part in not providing proper safeguards against danger, or by employing or keeping in their employ incompetent persons, when such incompetent persons may endanger the lives of their fellow workmen? A. I think, myself, they should be held responsible; and I think they are, under the law, too.

Q. Hardly. A. I think they are. If they can prove loss of life through employing incompetent or careless men.

Q. We have not such a law. At the last session of the Legislature I tried to change the law in that respect, but failed.

Mr. English: We ought to have a law to that effect, because the capital of the working man is his health and physical condition.

Q. Are you acquainted with the price paid for day's labor by State and municipality when laborers are employed? A. I am.

Q. Are you, Mr. Schuyler? A. No, sir; I am not.

Q. In figuring upon this contract, did you base your calculations upon the maximum rate of wages?

Mr. English: Yes, sir; we did.

Q. Upon the maximum rate? A. Yes, sir; upon the maximum rate. We had to get all the data as to what labor would cost before we could make any intelligent bid upon this work.

Q. Do you know what wages were paid upon previous contracts of this kind? A. I do not; I do not know anything about it.

Q. Do you think $1 50 per day is sufficient to support a family? A. I believe I answered that question in Sacramento. I said I thought it was a very low rate of wages for a man to get. I do not see how a man can support a wife and five or six children on $1 50 a day, in the city especially. I think it is very hard for a workingman to work for so small pay.

Q. Of course, when a man contracts to do work he must look out for himself or he will lose? A. He has to keep even. Our great trouble in this contract was to keep even.

Q. Do you think it a fair compensation for men employed in such work, taking the risk they do? A. No. I would rather see a man get larger wages. I think it is better for the State and better for the employer.

Q. If one of the men in your employ was caved upon and killed, in case you did not compensate the family for his death, don't you think the State would be morally responsible in damages? A. I do not.

Q. You do not? A. I do not.

Q. I suppose you do not, because you consider, as you answered in Sacramento, you do not consider it in that respect really State work? A. No.

Q. What did you pay your men for Sunday work? Did you pay them anything extra, Mr. Schuyler?

Mr. Schuyler: Yes, sir; we paid them extra time. We gave them extra time.

Q. One half time? A. I think so; I do not recollect just what it was. We paid them considerable more for Sunday work.

Q. Did you, Mr. English, employ a cashier or paymaster? A. Yes, sir.

Q. Did you have a regular day for paying your men? A. Yes, sir.

Q. The fifteenth of the month? A. Yes, sir.

Q. Where did you pay them? A. On the work, usually.

Q. Did each man receive in coin from the paymaster the full amount earned by him up to payday, or was any part paid the boarding house master: that question has been answered really? A. The boarding house master was paid whatever money was due him at the fifteenth of the month; that was the end of our fiscal month.

Q. I believe you stated in Sacramento that you guaranteed the full amount of the bill? A. Yes, sir; up to the time they worked.

Q. So if you owed a man $9 for six days' work, and the boarding master put in a bill for the full amount, for $9, you paid it? A. Yes, sir.

Q. How did you procure your men; did you advertise for what you wanted, or contract with any parties to furnish them? A. We did not pursue either course. They just knew they were going to work there.

Q. Were your men ordered to board at any particular house, and did you agree with the boarding house keeper to guarantee him from loss in trusting the men? A. Mr. Schuyler can answer that question. I do not know anything about that arrangement except the boarding house men were paid by our company.

Q. If a man disputed a bill for board or whisky what course did you pursue? A. They met and arranged it between themselves.

Q. Were there any disputes? A. I do not know of any.

Mr. Schuyler: There was occasionally one. We told the man that we had not the slightest interest in his board matter, and he must settle it with the boarding house keeper himself; and we would send him back to them, and he would bring the boarding house man there, and they would settle it there between them—divide it between them.

Q. You did not act as umpire? A. No, sir; we did not care who got the money as long as we got rid of it.

Q. Mr. Schuyler, I think you answered this question; did any boarding house keeper pay any one a percentage for sending the men to him; I think you answered, some of the foremen?

Mr. Schuyler: That was a rumor I have heard since; I do not know whether it is true or not.

Q. You do not know as to the truth of that, but you think perhaps the foremen did that? A. It is possible some of the foremen did.

Q. Were all your employés citizens of the United States, Mr. English, or were any questions asked? I think that question was asked you in Sacramento. A. It was, and I answered it, no; there were no questions asked.

Q. In choosing your men, then, you had no idea except to get the greatest amount of labor for the least amount of pay? I suppose that would be natural. A. That was not so. We could have gotten men for a lesser rate than that even. I was rather opposed to pay $1 50, and wanted to keep up to $1 75, and I talked with Mr. Hackett about it.

Q. Your partners believe you could not do it? A. We were not making anything on this contract, and we had to keep even if possible.

Mr. Hackett: We also told them if they would stay with us through the harvest time we would not reduce their pay, and we did not; but some went away and got a little more pay, and came back, and we thought it was not treating the men fair who did remain, and we would not pay them but $1 50.

[Mr. Schuyler here produced a paper showing the amount of wages paid each man after the first of September.]

Q. In figuring upon the contract, Mr. English, did you estimate eight hours as a day's work? A. No, sir; ten hours.

Q. You estimated ten hours? A. Yes, sir; we were guided entirely by the specification. We figured upon a basis of ten hours a day, and when the contract was offered me to sign, I declined to sign it until I understood the condition. The attorney of the Board of Harbor Commissioners told me the Supreme Court had decided in reference to that clause, and we had a right to make our own arrangement as to the hours of labor, without any reference to that clause in the Constitution.

Q. In that the attorney must have made a very great mistake. I have read that decision since the examination of the Harbor Commissioners, and that decision distinctly states that it is one of the things you cannot contract; that while there are only two of the Judges of the Supreme Court in favor of allowing you to work your employés any time you like—any time you agreed upon—there are three of them that decide eight hours to be a legal day's work, and you cannot change it; but even on their opinion you may work the men more time by paying them more money, according to the extra time worked.

Mr. English: But suppose you make a contract with them for ten hours for the aggregate sum; does not that cover the same position as you take?

Mr. Days: It does not cover the position taken by the three Judges, Sanderson, Sprague, and Crockett.

Mr. Enos: There is no penalty affixed to that, but with the Mongolian clause there is a penalty; as soon as Mongolians are employed there is a forfeit. I understand that is the reason.

Mr. Days: It is not; there are no reasons; but it is whether the executive officer can put in a contract a stipulation of forfeiture, or put in anything that the law itself did not put in.

Mr. Enos: Mr. English, you say it was expressly understood when that was put in the contract, and you objected to signing it? A. We had quite a controversy about it because we had figured on a basis of ten hours a day in making up our estimates. If they were to hold us to eight hours a day it should have been named in the specification. They put the Mongolian clause in the specification. Mr. Schuyler and Mr. Wagner were engineers, and had gone over the ground very carefully, and had made up these estimates, and we supposed there might be a little profit in the work, and there would have been probably some profit in the work had the quantities held out. Had we been able to put in the quantity we bid for there might have been some profit.

Q. Have you ever refused to live up to the contract as to the particular material you put in? A. We put in just what we agreed to.

Q. If you had not lived up to the contract in that respect, what would have been the result? A. They would not have accepted it, and the bondsmen would have been responsible, and the twenty-five per cent would have been held back.

Mr. Hackett: They always kept inspectors there to see that the right kind of material was put in.

Q. If you had not furnished the kind of stone agreed upon by the Harbor Commissioners, could they have annulled the contract? A. Yes, sir.

Q. Do you know any law for this? A. No; I do not.

Q. In this contract it is specially stipulated that eight hours of labor shall be a legal day's work; under the agreement how do you reconcile that with working your men ten hours a day? A. We have just discussed that answer.

Q. The Harbor Commissioners, then, never inquired how many hours your men worked each day? A. No, sir; they did not.

Q. Consequently, they did not appoint any one to look after the interest of the laborers in this respect, and see the law enforced; did they have any one engaged to look after the State's interest in respect to material used? A. They had inspectors—quarry inspectors—and had weighers and men who measured the sand that was put in; five or six men were employed there all the time in that way.

Mr. Schuyler: Three inspectors and four weighers——

Mr. Hackett: An engineer and assistant—all had a hand in it—about eight or ten men altogether.

Mr. English: They attended to their duties in relation to the work. The last section of the seawall cost $70,000 more than this.

Mr. Days: That is, the State employed men to see that you did not get any advantage, as far as a few yards of dirt were concerned; but when it came to men—human beings—a part and parcel of the State, persons whose necessities made it compulsory they should accept the merest pittance for their labor, and did not dare to grumble, or even find fault for fear of being discharged, and that in the face and eyes of the statute made and provided for their protection, the servants of the State could not utter one word of reproach to those who were violating the law and contract. They could spend thousands of dollars to save a few loads of dirt from being embezzled, but not one cent to see the law in favor of poor suffering humanity. Do you consider that a just mode of procedure, Mr. English? A. I will not take time to reflect and answer that question. It is very profound, and a very lengthy one; but, Mr. Days, I agree with you in every particular with reference to the labor interest of the country. No man in the State would rather see the laborer live and get larger wages than I; and I will join you in any way to assist you in formulating laws to that end.

Q. Don't you think, Mr. English, that the State would have as much honor in looking after the interest of the poorest of its citizens as in looking after a few loads of dirt? A. I think they would.

Q. Suppose a section of the seawall that would require the labor of one hundred men for two hundred days, wages average $2 a day, the law being as it is, "eight hours a legal day's work," one contractor, who respects the law, estimates for wages $40,000; another contractor proposed to work his men ten hours per day, and bids $2,000 less than the former. If the Harbor Commissioners knew this fact would they not be violating their oath of office if they awarded the contract to the ten-hour man, and would it not be a robbery of the eight-hour man if the other contractor was allowed to work his men ten hours a day? A. I really cannot answer that question. I think the Harbor Commissioners are very efficient. I think it is a defect of the law, and not their fault. I can answer that question in that way. If there is any defect it is in the law, and the law should be remedied; and as you are one of the lawmakers of the country, Mr. Days, you ought to be able to accomplish something in the Legislature. Some law should be made that will make a maximum rate for men on public work.

Q. It would have made no difference, supposing the Engineer had put in his specification that this work must be done under the eight-hour law, for then you would have bid under those conditions, and others would have done the same?

Mr. Hackett: If that had been in the specification we would have bid in accordance with it.

Mr. Days: In my opinion the Harbor Commissioners--I do not mean in particular the present ones, any more than the past—have been derelict in their duty.

Mr. English: I think the defect is in the law, and not in the Board of Harbor Commissioners.

Q. While building section number five of the seawall, Mr. English, you had a contract to furnish rock for some portion of the other side of the bay. Was that rock taken from

Telegraph Hill, and weighed on the same scales as the rock for the seawall? A. No, it was not. That was measured on the scows.

Q. I desired to ask that question, from the fact that I heard it charged, I do not know by whom, that you actually took the best of the rock, and that you had it weighed on the scales by men paid by the State? A. That would have been folly for us to have weighed it, because Colonel Mendell weighed that rock over there, and measured the scow when it was loaded and unloaded.

Mr. Days: I could not see anything in the charge myself.

Mr. English: We had the very best rock, no doubt, and had a right to do what we pleased in the matter.

Mr. Hackett: Most of the rock for the Oakland side was bought up at this end of the quarry on purpose for that.

Mr. Enos: Would you have signed this contract for the construction of section five of the seawall if you had understood that they would have enforced that eight-hour provision contained therein? A. I would not.

Q. You then signed it with the understanding that you had full power to make what arrangements you pleased? A. Yes, sir, of course.

Q. And, so far as your knowledge goes, the contract has been lived up to with that exception? A. Yes, sir.

Q. And that was waived on the part of the parties who made this contract? A. Yes, sir.

Q. Do you know of any parties being influenced, or attempted to be influenced in political matters connected with the seawall? A. Not in the slightest.

Q. Have you any knowledge, directly or indirectly, of any truck system being adopted under your employ? A. None whatever.

Q. You have no knowledge of any parties being compelled, or induced to go to any particular place to board? A. Not at all.

Mr. Days: Mr. Schuyler, how much more would it have cost in grading that street, to grade it from the top and terrace it; for instance, cut it down from the top; have you any idea? A. That is an impracticable way of doing the work.

At this point an adjournment was taken to Thursday, June 4, 1885, at 7 o'clock P. M.

June 4, 1885, 7:30 P. M.

Marsden Manson.

Called.

Mr. Days: Please give your name, address, and official position. Answer—Marsden Manson; 1713 Buchanan Street; Chief Engineer of the Board of Harbor Commissioners.

Q. How long have you been Chief Engineer? A. Since June, 1883.

Q. What are your duties appertaining to the letting of contracts for the Harbor Commission? A. My duties are to draw the plans and specifications of such works as need repairing or constructing, and to see that the contract is complied with, so far as the construction and mode of building, and material used, is concerned.

Q. Do you draw the contracts? A. No, sir; that is generally done by one of the clerks in the office, and is sometimes looked into, where it is a contract of importance, by the attorney of the Board, Mr. Coogan.

Q. But the clerk draws the contracts? A. Yes, sir.

Q. Do you know how wide, deep, and long is the rock embankment of seawall, section number five? A. The bottom width is a matter that could not be well ascertained, nor could its depth be well ascertained. Its length is one thousand feet; the bottom width is variable, owing to the depression of the mud beneath, and its width could not be well ascertained without a good deal of expense in sounding, and the same way with the depth to which it sinks in the mud. That is a matter that we could not very well ascertain.

Q. Did you dredge to a uniform depth of the bay when dredging for a foundation for section number five? A. Yes, sir; as near as we could. The buckets of our dredges have two causes which prevent them from taking hold of the bottom; in the first place, where the bottom is very resisting; and the second place, where the depth is very great the displacement of water materially lightens the weight of the bucket. We dredged as deep as the dredge would take hold of the material; and I have frequently had it sounded, sending the dredge over the same place again, making a second and even third attempt at the same point.

Q. Why do you weigh the rock for the solid embankment; could you not tell by measurement as well as by weight? A. No, sir; we can tell a great deal better by weight.

Q. That is really the only means you have of knowing what goes in? A. Yes, sir; the rock goes in loose, rocks of an irregular shape, and are not the same in each vehicle or cart, and then the rock being thrown into the vehicle in a loose mass there are voids caused by their irregular form; the solid spaces are in the proportion of about one half, or about even, and sometimes it will vary from forty-five to fifty-five per cent; but you may generally take it as averaging about fifty per cent. That is, the absolute void. Then it varies with respect to the kind and size of the rock. Sometimes one stone will weigh as much as two and a half tons. That stone would constitute a load for a heavy vehicle, and would require two horses to move it at all. Sometimes the rock would be carried in carts and sometimes on cars on an iron track. The stone would be exceedingly irregular in size; it was rough, heavy stone, and its exact dimensions could not be gotten at with great accuracy without a great deal of trouble, and even then it would be unreasonable to figure it with great accuracy, whereas it can be weighed with all reasonable correctness without any delay at all, and can be weighed faster than it can be loaded or dumped on any ordinary quarry place.

Q. Would or would it not be cheaper to let the contract for building the seawall by the entire section upon the estimate of the Chief Engineer, than by weight? A. I think it would be cheaper to let it by weight, and for that reason I advised the Board to let it by weight.

Q. That has been the usual way of letting it, by weight? A. No, sir.

Q. Is this the first time it has been done by weight? A. This is the first seawall that has been built by weight.

Q. How near did your estimates of the rock and dirt required for building section five come to the amount actually used? A. It came within a very reasonable proportion. I have not the exact proportion, for the reason that all the data are not in as yet; all the material for the embankment has not been put on. I estimated on the basis of vehicle measurement, by means of which the sections prior to this were constructed, it would require as much to build section five as the record showed that it took to build sections four, three, two, and one, and section eight. With that data before us it was estimated that it would take 216,000 tons of stone for the construction of section five. Upon completion of one third of section five I noticed the weighing of the stone was very much in favor of the State; in other words, a ton of stone was a fixed quantity, that gave the State the benefit of a known amount of stone. I mentioned to the different officers of the Harbor Commission that it would require about 120,000 to build section five; the actual amount of stone put in section five was 119,000.

Q. In your opinion do you think that the previous sections could have been built cheaper if they had been let by weight? A. I do.

Mr. Enos: Cheaper in proportion as section five under your estimates? A. I am not prepared to say what proportion. At the time I made the estimates for section five, there were before me the records regarding sections four, three, two, one, and eight, which were constructed prior to this time, and the report of the Board of Engineers, appointed by the Governor of the State to investigate the quantities taken for the construction of the seawall, was that, in their opinion, the stone embankment of sections four, three, two, one, and eight, was sunk about eleven feet into stiff clay underlying the foundation. With that statement staring me in the face, and without any definite data regarding it, I recommended the Board to build section five and weigh the stone in tons of 2,240 pounds. It is the method employed in all engineering work of the United States Government. It is the method employed on the stone work done in the East, on Chesapeake Bay, and the stone work on the Delaware breakwater; and it is most properly estimated in tons of 2,240 pounds. And if the material is transported on cars or land vehicles, the weighing is not much trouble; an accurate, definite amount of information is gotten, to say the least; and in addition to that, if it is brought by water, the displacement of the barge or transport can be very easily arrived at; so that the amounts, by weight, are easily gotten at, and I regard the method of doing rough work by the ton as by far the most desirable and proper.

Mr. Days: Do you think there was any just reason why the previous sections took so much more rock and dirt than section five? A. They did not take so much more. The earth was not so vastly in excess; the earth is about the same. There is no difference that is material. I think it would have taken less if it had been done by the ton; but where a contractor bids for material to be put in by measurement in the vehicle, why, it is a perfectly fair proposition. There are different methods of measuring earth. It can be measured in the embankment from which it is taken, in the vehicle of transportation, or in the embankment in which it is placed. It is sometimes improper to measure the earth in the pit. Different classes of material come from different places, and could not be segregated. There is earth, and small rock that go in as earth, and then the rock which goes in as stone, and we could not segregate that, consequently the measurement in the pit is not reasonably practicable. Then, again, measurement in the embankment is not practicable, for slides take place, and in many instances it is risking human life to attempt to measure it; and with all the precautions that an engineer could take, reliable results could not be attained; whereas, in the second method, in the vehicle of transportation, it is as accurate as can be well gotten, and gives very favorable results in case of earth; but with rock it does not do well, on account of the irregular shape. Large masses of rock could not be measured in that way with any accuracy.

Q. Could not the outside wall be built, to prevent any spreading out, so far as the outside is concerned. The spreading, of course, would not make any difference as to the amount put in. It would not spread out of the section? A. The difference would not be to any extent. The mud displaced goes out of their section entirely; but very little of the material deposited in section five went ahead of their section. Some little went out of the limits, but the loss was immaterial, so far as section five is concerned.

Q. The parties who built section four have put in every ounce of rock which they reported, have they not? A. They did not put it in by weight. The reports were in terms of cubic yards. That is the unit of measure. In section five I discarded that, and not knowing the exact relation in that section I had no reliable data, and I recommended that section five be built by weight, even if it took all of this material, and the extra expense to be incurred to weigh it, in order to get accurate data; and the weighing of that and the scales cost several thousand dollars, but it saved considerable more than by measuring it by the vehicle.

Q. The State had to pay for the weighers? A. Yes, sir.

Q. You consider you saved on that; also the cost of the scales? A. Several times over.

Q. Do you know the law in relation to the employment of laborers, mechanics, etc., in performing work for the State, both by contract and otherwise? A. I simply know that Section 3245 of the Political Code forms a part of all contracts on behalf of the State.

Q. In drawing your specifications do you state that no Chinaman can be employed; and that eight hours is a legal day's work for those engaged on the seawall? A. Yes, sir; the Chinese clause was put in the specifications. The eight-hour law is merely a citation of Section 3245 with regard to eight hours constituting a day's labor. The eight-hour clause was not put in the specification for section five but was put in the specification for section six.

Mr. Enos: Are those your specifications? [Handing witness specifications.] A. Yes, sir; the specification embodied the article in regard to Chinese, but not the one with regard to eight hours of labor constituting a day's work; that, however, was put in the contract for section six, and has been put in all contracts.

Q. Why was not the eight-hour clause put in the specification? A. I do not think the specification for a piece of work of any kind should embody any article of the Political Code. If one is published, all should be published. That is my private opinion of it.

Q. Did you have any directions in regard to that by the Board? A. Since the drawing of specifications for section five I have, under directions, put that article in.

Mr. Enos: That is, in relation to section six? A. Yes, sir.

Q. Is not that the only section that has been let since? A. Yes, sir.

Mr. Days: You put that section in the specification, you say? A. Yes, sir; in all specifications since that time.

Mr. Enos: Was that done by the order of the Board? A. Yes, sir.

Q. The gentlemen who obtained that contract for section six have begun to work under it? A. They have.

Q. You, as Engineer, are superintending that also? A. I am superintending the delivery of the material, and its being put in place, and the quality of it, and weighing it.

Q. Do they live up to that specification for working the men but eight hours? A. I do not inquire into that at all.

Q. Have you any knowledge of it? A. None, whatever; I know that myself, and the men under me, frequently have to work over eight hours a day, but we are employed by the year, and paid by the month, and we do what is required to further the work.

Mr. Days: You stated you had the general supervision of the work? A. I had the supervision of the contract in regard to the character of material used, and its proper use.

Q. Of course you are acquainted with the terms of the contract; you have read the contract? A. Yes, sir.

Q. If any of the rock used was inferior to that required by the specifications, what would you have done under the premises? A. There was a great deal of it that was brought forward to be put into the seawall which was put in as earth filling.

Q. It was refused for the outside part? A. Yes, sir.

Mr. Enos: Was that accepted by measurement or weight? A. It was accepted by measurement in the vehicle. If a load was brought in there, weighing a certain number of pounds, we knew the specific gravity of it, and would just convert that into its equivalent volume of material and count it as earth filling; knowing its weight, we could get at its volume better than any other way.

Mr. Days: Did you appoint any one in particular to look after the State's interest in this respect? A. There were assistants of mine, appointed by the Board, who had the directing and instructing of those doing the work, to see that they carried out their instructions.

Q. Suppose Mr. English had employed Mongolians to do the laboring work, what steps would you have taken in relation thereto? A. None at all, sir; that was none of my business. The duties of the Engineer of the Board of Harbor Commissioners are very specific, and that is not one of them; the proper person to look after a thing of that sort would have been Mr. Enos, I think; and the Board might have seen fit to take notice of it.

Q. Was the Board instructed to take any notice of it? A. There was no necessity for instructing it. The President of the Board was cognizant of the general character of the work, and I do not think the Mongolian clause of the contract could have been violated without some knowledge of the fact.

Q. If the knowledge of the fact did come to the Board, whose duty would it be to look after it? A. The President of the Board would have looked after it.

Q. Did you or any one ever inquire if Mr. English was fulfilling his contract in relation to the eight-hour law? You placed that portion of the eight-hour law in the contract? A. That was put in the contract.

Q. Of course, being in the contract, it was supposed that any party who signed the contract would agree to live up to the contract, and of course was bound by the contract; and the eight-hour law being a part of the contract, he was bound by that. Did any one inquire of them if they were living up to that contract? A. Not that I know, sir.

Q. Of the mechanics and laborers employed directly by the State Harbor Commissioners, are any of them under your charge? A. Yes, sir.

Q. How many hours do they work each day? A. Those that are employed on the repair force work about eight hours a day; those employed in the dredging department, I think, work about nine hours; those employed in the Engineer Department frequently work a good deal overtime. I have to often ask them to come down to the office and work late in the evening.

Q. Are they paid for overtime? A. No, sir.

Q. Are they paid by the month? A. They are employed by the month, and I should not think they would be under that law any more than I would be.

Q. The Harbor Commissioners testified that they did not consider the eight-hour law affected those employed by the month, but they testified that all mechanics working for them were employed by the day, and worked eight hours? A. They generally work eight hours, but they are employed by the day.

Q. Do the mechanics and laborers employed by the State work as faithfully for you as they would have to do for a private citizen or corporation? A. That depends very largely upon the man. We have some men who are faithful, and some who are not.

Q. Would not you find the same anywhere? A. If you employ men privately you find that same thing; some men do better work than others.

Q. Taking the average in that respect, do the men that are employed by the State work as faithfully as they would for a private person? A. I have not had an opportunity of judging for any great length of time; I think the foremen would be able to answer that question. We do not get as rapid work in some instances, but we frequently get better work than we could by contract; some contractors will slight labor if they have the slightest chance. We find a good deal of street planking done by labor, in which we get better spiking than under contract; the work is not done as quickly, but I think we get a little better work, consequently you might assign it to not as faithful work.

Q. It seems to me, if a man does work better than another, he does as much work; that is, one person may do apparently twice as much work as another, and yet that work not be fit to pass muster? A. That depends upon what light you look at it, whether that of the State or the contractor.

Q. I am looking at it in the light of utility, that which is the best. If one man does a piece of work that will stand four years, and another man does twice as much work, and his work stands two years, then the former does the most work really, as far as the interest of the employer is concerned? A. He does the best, decidedly.

Q. What wages do those employed by the day receive? A. Those employed by the day receive, I think, $3—those that I have.

Q. That is for lieutenants? A. Yes, sir.

Q. What do the laborers receive? A. By the month, $75.

Q. Have you not laborers that are employed sometimes by the day? A. Yes, sir.

Q. Do you know what they are paid? A. Those are paid $3.

Q. The laborers are paid $3? A. Yes, sir.

Mr. Enos: What does their labor consist of? A. There is one man who is engaged at present on the Folsom Street Wharf, applying a coating of coal tar to those portions of the wharf which rot quickly.

Q. Do you know of any men who are employed at $3 a day for common labor? A. I have two others who are employed at present on Vallejo Street in distributing the waste material and refuse that is dumped there from gas works, etc., from different parts of the city. Those men are paid $3 a day.

Mr. Days: Is that the lowest you pay? A. I had quite a force last fall at $2 50. This man I have on the Folsom Street Wharf is a very reliable and active man, in every way desirable; and I have known him to be down there at five o'clock in the morning in order to have his material prepared so as not to delay the contractor, and he has been there on Sunday. I have been there to see if he was working well, and it was always properly performed. On portions of that work I have paid him for overtime, and portions I have not. He is anxious to see the work go on.

Q. Do you know what the maximum price of labor is—I mean the market price? A. It is about that, sir.

Q. About $2 50? A. No, sir; I am paying $3 a day; but I have paid $2 for private work of my own.

Q. Supposing you want certain work done, would you pay laborers whom you know nothing about $2 or $2 50 a day? A. No, sir; I always try to employ laborers I know something about.

Q. Suppose you could not get those whom you know? A. I would wait till I could.

Q. Then what you mean to say is, that you only employ those whom you know to be thoroughly competent laborers and good workers? A. Yes, sir. I will give you an instance: I wanted a man to do a portion of this work, and I hired two laborers and a team from the contractor. I found one of those men to be very quick, and a good man, and I employed him on other work.

Q. You really do not know what the common price of labor is? A. I know some laborers can be had here for about $2 a day, and $2 50.

Q. Mr. English and Mr. Hackett testified the other day that they paid $1 50 and $1 75 a day, and they considered that the maximum price for labor here? A. I would rather pay a good man $3 than a poor one $1 75.

Q. Suppose all the State work was performed by day's work instead of contract, could it not be done cheaper? A. No, sir.

Q. Why not? A. I think it would require a great deal of extra organization, and our system of laws is such that we would not be able to control the force. A large force of laborers would necessitate extra organization, and there would be a liability of having the same trouble as was had during the construction of sections one and two.

Q. Was that done by day's work? A. No, sir; but the circumstances would have been the same, so far as the general condition was concerned.

Q. You did not hear of any riot or trouble on State work where the laborers were directly employed, did you? A. I do not think of any.

Q. You never heard of riots and trouble where laborers were paid what were considered good wages? A. I have never known of any large State or National work done that way, consequently I could not say whether I had heard of such or not; that work has always been done by contract. The United States laws require it to be done by contract; both the United States and State laws require all work amounting to over $3,000 to be done by contract.

Mr. Enos: Is it not a fact that all the trouble we have had has grown out of the fact that the laborers have not received just compensation? A. I think the cause is sometimes due to shortcomings on both sides—on the part of the contractor and employés. It is a question I have never had an opportunity of looking into, as to the cause of it.

Mr. Days: Many of these questions are asked for the purpose of getting your opinion, amongst others, of these things, as well as to get at the facts in relation thereto. They are not asked for the purpose of making anything invidious of them. A. I do not think it would be a desirable thing to do State work by day's labor.

Q. You stated before that in the employment of labor you could do better work than probably the contractors, but probably not so much work? A. That is the case in small amounts of work.

Q. Why not in large amounts of work? A. Because you cannot control your force as well. You cannot exercise as much care in choosing a large number of men, and the larger number of men necessarily create a larger number of circumstances that will tend to create trouble. There are more difficulties to control, and not only in State work but in other work of an extended nature. I would rather have the work executed by contract because the contractor, as a general thing, is a man fitted for that work, and can organize and arrange and put men to work better than the State. The State, for instance, would have to employ foremen at a large price to organize the force and put it in shape, and would have to have sub-foremen. A contractor, who makes it his business, could collect around him a force of such men whose capabilities he understood, and could put each one in the right place, and very much better results are obtained by such an organization than if the State had to organize the forces.

Q. From your education as engineer, you understand the building of seawalls as well as, if not better, than any contractor in this city. Now, suppose you had the power to employ and discharge men, and you were not compelled to take into consideration any political reasons, would it not be to the interest of the State to do the State work by the day? A. That would be a question which, before forming an opinion, I would want some definite facts upon which to base an opinion. I have never seen a piece of work of that size carried out that way, and, consequently, I have no data upon which to give an opinion.

Mr. Enos: You understand all about this seawall that has been built? A. Yes, sir.

Q. Suppose the State had directly empowered you, instead of letting it out by contract on the basis of $223,000, to hire the men by the day, could not you have done that work as cheap as the contractors did in this case under investigation? A. I have not the data upon which to base an opinion. I have never done a piece of work in that way, and I do not think a man onght to give an opinion on a suppositional case.

Q. With your experience as an engineer and management of forces and gangs of men, don't you suppose you could have done it and paid the men $2 50 or $3 a day, and do you not believe it would be better for the State and laboring men? A. That is a question I cannot answer. I would not object to taking the responsibility of trying it, and would be very glad of the opportunity of demonstrating whether it is so or not.

Q. The supposition is that when a man makes a bid for work amounting to $223,000, he takes it so he can make something? A. Yes, sir.

Q. Do not you think it would be better for the State to pay this directly out to the laborers, even if it costs the State more? A. With an Utopian condition of affairs they might do so.

Q. What do you mean by "Utopian;" that is frequently used to get rid of any question of this kind? A. I mean by Utopian, a state of affairs which we would desire to have but have not.

Mr. Days: Have you any idea, Mr. Manson, how many more laborers there are in the City of San Francisco than can obtain employment at regular work in the city? Did you ever give that question a thought? A. No, sir; and thoughts on that line would be merely theoretical, because under certain circumstances there are not enough laborers here to do all that might be required, and you could not reasonably get enough under certain circumstances.

Q. Mr. English and Mr. Hackett told us the other day that they had a great many men apply for work every day, at any price, and that they even had letters from members of the Supreme Bench asking them to give employment to certain men? A. I have not an idea of the present number of men out of employment, but I am inclined to think it is great, because I see men looking for work, but I have not had time to look into what number there are. I have not given the matter thought. All labor employment of any kind is entirely dependent upon the demand. Just now there is not a very great demand.

Then, again, I have seen the time in this State when there was a very great demand for laborers in the country and none there to fill the demand, and an excess in the city.

Q. That is, you mean there were none there that parties could get at their own particular terms? A. None there that they could get at any terms. There are different parts of the State in certain seasons of the year when they could not get laborers at anything like what the same labor could be obtained in the city. The laborers seemed to have flocked to the city.

Q. Have you any idea why the eight-hour law was passed in this State? A. No, sir; I have not. I do not remember when it was passed. I do not remember the circumstances connected with its passage.

Q. Have you ever known a country in the world where there were not a great many more laborers than could procure employment? A. My experience has been confined entirely to America, having never been out of it in my life; but I have seen places where men wanted work and could not get it.

Mr. Enos: In this contract I find the following clause: "In case of any difference as to the intent or meaning of the plans and specifications, or as to the character of the material or work, or as to the estimates and measurement, etc., it shall be decided by the Engineer of the Board, and his decision shall be final." According to that, you are the sole arbiter as to the material and character of the work done? A. Yes, sir.

Q. And don't you think, under that clause, you have a right to see that this other clause shall be enforced: "And it is expressly stipulated that eight hours shall constitute a legal day's work under this agreement, and all provisions of Chapter X, Title VI, of the Political Code, applicable thereto, shall be determined as incorporated herein?" A. My interpretation of that would be this, sir: in reference to their work, that has reference to the mode of performing the work in order to get good results, so far as the structure was concerned, and not with reference to the labor performed in getting it in that shape.

Q. Have they complied with your instructions? A. Yes, sir.

Q. Your directions have been obeyed? A. Yes, sir. So far as the reference to the eight-hour work there, I probably could have made a suggestion.

Q. You never have? A. No, sir; nor do I think it would have amounted to anything.

Q. Each bidder must state in his proposal the quarry or exact locality from which he will obtain his rock, and exhibit specimens of the rock. Was that done? A. Yes, sir.

Q. Did they tell you where they were going to get this rock? A. Yes, sir.

Q. Where? A. Telegraph Hill.

Q. Did they specify any streets? A. No, sir.

Q. Do you know whether any of this rock or dirt was taken from any private property? A. I know some was taken from private property.

Q. Did you go upon the property specified before they commenced, according to this contract, to see where they were to take it from? A. Yes, sir.

Q. Where did they take this rock and dirt from? A. The east face of Telegraph Hill.

Q. That was from private lots? A. Portions of it.

Q. Did it injure or destroy any private property, to your knowledge? A. It did.

Q. Did you daily witness the excavations that were made by the blasts, etc.? A. I cannot say daily; from time to time.

Q. Do you know of any difficulty arising between the contractors and the owners of property in relation to this excavation? A. Yes, sir; I was cognizant of the fact that there were different methods taken to stop certain methods of excavating.

Q. Did you make any suggestions thereto in relation to the excavation of that private property? A. None, except with regard to statements concerning the action of some of the property holders.

Q. Was that statement brought to the attention of the Harbor Commissioners? A. No, sir; there was no necessity for that at all. I had nothing to do with enforcing the police regulation, or the modes or methods which the contractor employed.

Q. Do you know whether you had any conference with the Board of Harbor Commissioners in relation to any difficulties arising between the contractors and the persons who had lots there? A. None that I recollect.

Q. You speak about obtaining labor here; suppose the State saw fit to construct three, four, five, or six sections of seawall, length one thousand feet, do you think there would be any trouble to obtain laborers in this city and State to carry on that work, even if you should commence to-morrow? Do you not think there would be plenty of laborers willing to work for $2 a day? A. Yes, sir; I think laborers could be obtained.

Q. Don't you think, as an engineer, if the State could expend $1,000,000, or $500,000, it would be desirable for the State to do this work, if they had the power, by the day? Would it not be a greater benefit to the people at large to have it paid out directly to the laborers through the State's agents; say, through the Board of Harbor Commissioners? A. That is apparently a very simple question, but it is a very broad one, and its answer calls for more experience in political economy than an engineer is naturally supposed to have.

Q. What is your opinion? A. If you want my individual opinion, I would want a very rigid civil service reform enforced before undertaking it myself.

Q. That is rather indefinite. Suppose the power was delegated to you, with power to employ, and discharge, and organize your forces, with your experience as an engineer, don't you think it would be desirable for the State to have it done by days' work? [No answer.]

Mr. Days: You were present when the contract was signed? A. I do not recollect being present. I remember hearing a portion of it, and the matter talked of between Mr. English and the Board. But knowing that it was part of all our contracts, it would have to come in anyhow, and being very busily engaged at the time, I did not pay much attention to it.

Q. Have you seen any of the previous contracts for seawalls? A. Yes, sir.

Q. Did they contain the eight-hour contract? A. I think so, sir; I am not certain; I do not recollect it; I think they did.

Q. You do not know whether they lived up to that or not? A. No, sir.

Mr. Roney, one of the audience, then asked the witness the following questions: Mr. Manson, is there any uniform fixed wages for the laboring men employed under the Harbor Commissioners? A. I think not; we are paying $2 50 or $3 a day.

Q. Are those the regular rates paid? A. Yes, sir; $2 50 and $3 a day.

Q. Now, supposing, according to the contract, Chinese had been employed on the seawall, do not you think it would have been your duty, in your capacity as Supervising Engineer, to report to the Harbor Commissioners that fact? A. I do not think it would fall under my duty, as prescribed by law, any more than it would any citizen of the State. That is not the duty of the Engineer prescribed by law; but I am pretty certain that I would have called their attention to it.

Q. You do not think it would be your duty? A. Not as prescribed by the law. It might, as a citizen, in order to be loyal, to see the proper mode of procedure carried out by the contractor, where there was a penalty fixed; but in the case of this eight-hour matter, it would not have amounted to anything if I had called the attention of the Board to it, because there was no penalty attached to it. I asked several lawyers in regard to the matter, and talked the matter over with my brother who is a lawyer here.

Q. You have the immediate supervision of these men employed under the Harbor Commissioners, have you not; that is, you see that they do their work properly? A. Yes, sir; go over their work and call the foremen's attention to the character of it, and recommend the execution of such and such things, and see that it is properly carried out.

Q. Do you think those men employed by the Harbor Board do their work as faithfully as for a private employer? A. All do not; it depends very largely upon the man. Some of the men I employ in my own private work do their work a great deal better than others. In all classes of work you get better work out of some men than out of others. Some men give us very satisfactory results, and we get as good labor as any contractor, and some I get better work out of. I can name one man, I believe, I get better work out of than most any contractor gets out of his employés.

Q. This is the man at the Folsom Street Wharf? A. Yes, sir.

Mr. Enos: You say that if the State employs a man who has good work in him, he will do good work, and a poor man will do poor work? A. It depends upon the man you employ.

Mr. Roney: You think, then, the State could perform a large quantity of work, such as constructing the seawall, just as well as a private contractor under those conditions, do you not? A. If they could get the right men.

Mr. Days: Suppose you had the power, as stated before, you could get the right men? A. With the absolute power of discharging.

Mr. Enos: The contractors themselves had difficulty in getting men to stay with them? A. Yes, sir.

Q. You would have the same trouble? A. Yes, sir.

Q. And the State would have the same, and no more? A. Probably more. Another trouble would be that, where they are working for a contractor, there is a very general opinion, and I do not attribute the fault of it to our republican form of institutions entirely, but there is a great deal of trouble in controlling some of the men. All over the world there are turbulent spirits.

Mr. Roney: Are these political situations, Mr. Manson; does it require political influence to secure a job under the Harbor Commissioners? A. Not always, sir.

Q. Do you think that among men working for such people as the Harbor Commissioners—that is, gentlemen holding political positions—that there is more shirking of work, or sojering, under such employment than under private employment? A. It depends upon the man entirely. If a man is inclined to sojer, he will do it.

Q. Do you not think it would be an encouragement to a man to do his work well if he was properly compensated for it? A. I do, sir.

Q. He would be less liable to shirk in consequence? A. Yes, sir.

Mrs. Fannie McGregor Baber.

Called.

Mr. Enos: Mrs. McGregor, where do you live? Answer—215 Green Street.

Q. In the vicinity of this seawall? A. Yes, sir; right at the precipice.

Q. How long have you lived there? A. I have owned property there since 1852.

Q. What street, and what lot? A. The southeast corner of Sansome and Vallejo; 63 feet on Green Street by 137½ in the rear.

Q. What improvements were there on the property? A. I had three houses that brought me in an income, not always, but occasionally, of $100, sometimes $75, a month, and I have not had any income since these contractors commenced their work. They have destroyed my property.

Q. Has that property been damaged or interfered with in the construction of this seawall, section number five? A. Yes, sir.

Q. To what extent? A. The house I now live in. It occupies 31½ feet, and they have destroyed 31½ feet of my property; that is, half of 63; they have entirely destroyed it.

Q. Have they interfered with the other two buildings? A. Yes, sir; one of the buildings next to the quarry is shattered, mashed, and shook up, and no one would live there. I do not sleep there, but my son slept there.

Q. Have they blasted into your lot? A. Yes, sir.

Q. Are you prepared to say they have put a blast in your land there? A. I am not prepared to say that they have gone on the land. Here is the line of the property [showing], and they pretend to put a blast in on the line, and instead of drilling a hole perpendicular they drill it slanting.

Q. Did they enter on your land? A. Yes, sir.

Q. Beyond the line of the street? A. Yes, sir, and destroyed my whole property.

Q. To what extent have they damaged your property? A. I am not capable of judging of that. I have lived there thirty years. I value my property. It is my home.

Q. To what extent do you think it is damaged? A. I think $10,000 would not replace me as I have been.

Q. Do you think that material that was taken from your property was taken into this seawall? A. The better part was carried on a barge; was put in those little carts, and was carried and deposited on a barge, and taken over to Alameda, and the refuse and clay was deposited into the seawall. There is none of my rock ever went into the seawall.

Q. Who did that? A. English, Hackett, Wagner, and Schuyler. I have a suit against them.

Q. Can you give me the names of the parties whose property has been damaged in the construction of this seawall? A. Yes, sir.

Q. Who are they? A. Mrs. Overand, McEwen, and Mr. Brummel, Mrs. Burdette, Mr. Murphy, and several others that I am not acquainted with. They have driven poor people—poor working people—right from their homes.

Q. Has there any private property been paid for? A. I never heard of it.

Q. Have they ever made any offer of settlement with you? A. No, sir.

Q. Have you ever attempted to secure compensation? A. Hackett, Mr. Schuyler, and another person, came to me one day, and said, "How much will you take, Mrs. Baber?" but they came to nothing definite. They did this in order to keep me in suspense. I took the hint and sought the protection of the law.

Q. Did you restrain them? A. I have an injunction on them now.

Q. And since that time they have ceased? A. They have ceased at my side. They commenced on Union Street, on poor people's property, who had not the means to defend themselves, and then, when they thought they could not get any more rock there, they came around on McGregor's side, but there was no rock there.

Mr. Days: Did the majority of property owners on Sansome Street petition the Board of Supervisors to allow Mr. English to grade the street? A. Not that I know.

Mr. Enos: You did not? A. No, sir; nor anybody I am acquainted with.

Q. They claim that they have an order from the Board of Supervisors to grade certain streets, and therefore they shelter themselves under that? A. We also had a petition before the Board of Harbor Commissioners and Board of Supervisors, and we defeated them on both cases. Mr. Hackett's lawyers put up a record that they bought a lot there, and they wanted a petition from the Supervisors to grade through the lot. They leased that lot there of a man for three years. This was the excuse that they could injure poor people.

Q. You, for one, did not proposed to be injured? A. No, sir. They destroyed the property of poor people, and the poor people left their houses and came to me. I offered them my house to come into, and they said, "We are in as much danger in your house as we are at home." My tenants left; and I have not had one dollar out of my three houses since then.

Mr. Roney: You have no idea how many houses have been destroyed, have you? A. I know two ladies that had their houses destroyed; and there is another person, Mrs. Ogan, and Brome, and McArevy, and several others that I don't know their names.

Miss E. J. McArevy.

Called.

Mr. Enos: Where do you live? Answer—1305 Montgomery Street.

Q. Were you in ownership of any property there? A. It was my home.

Q. What is the size? A. Twenty-five feet front and one hundred and twenty deep.

Q. And you had a house upon it? A. Yes, sir.

Q. That was your home, and you resided there for how long? A. Twenty-five years.

Q. You were living with your mother then? A. Mother and father.

Q. What effect has the blasting of this rock had upon it, if any? A. It has damaged our home, and taken it down.

Q. Is the building gone? A. Yes, sir. It went down on the fifteenth of last October.

Q. Was the dirt and rock that was taken from the lot put into this seawall? A. I think a portion of it.

Q. Was there any blasting done in your lot? A. I think not.

Q. What was the value of your property at the time they commenced this excavation? A. As a home I should consider it worth about $2,500 to me.

Q. You think that would be a fair value? A. Yes, sir.

Q. Have you ever received any compensation for it? A. Not five cents.

Q. Has any offer been made for restitution in grading your lot? A. Not to me, but to an attorney, but he would not accept it.

Q. Has legal steps been taken to restrain them? A. It has been in the hands of an attorney for some time, but they have put him off and I don't know what is going to be done about it.

Q. Can you give me the names of any other persons except what Mrs. McGregor gave that have been injured? A. James Hartford, Mr. Murphy, Michael O'Neil, Mrs. Burdette, on my side of the hill. It is not necessary for me to mention the names that Mrs. McGregor has mentioned.

Q. You have been compelled to leave your lot? A. Yes, sir.

Q. Did you sign a paper for grading the streets? A. No, sir.

Q. Were you ever requested to do it? A. No, sir.

Q. Did they ever make an offer to grade your street? A. Mr. Hackett called once on me and made a proposition to me, and I told him I did not wish the place to be graded, and he said if he should damage our home what would I do. I told him I supposed if he would not settle satisfactorily with me I would have to settle with the Court. He said he was going to grade that street, and if he damaged that property we could do the best we could.

Q. Has the street been graded? A. It has been left in a miserable condition, not passable.

Q. What condition was the street in; was there any cut there before he commenced the excavation? A. No, sir.

Q. And they cut down to about 125 feet? A. I think so as near as I can tell.

Q. You say your lot was 25 feet by 120? A. Yes, sir. All that is left is about 25 feet fronting on Union Street, and about 40 feet deep. That is all that is left.

Q. It is all gone except that? A. Yes, sir.

Q. That is all that is left of the original surface as it was at the time they commenced? A. That is all that is left.

Q. The house is entirely gone? A. Yes, sir; it went down on the fifteenth of last October; fell down itself, through their blasting.

Q. It tumbled down? A. Yes, sir.

Q. You moved out the furniture and everything? A. About five months before we had moved out, through their blasting; there had been a great many things damaged in the house; pictures and windows and various things broken.

Q. During the time you lived there, occasioned by the blasts? A. Yes, sir.

Mr. Days: That really compelled you to move? A. We were compelled to move. When they would have a blast they would notify us to go out of the house, and sent a special policeman to us, and we would state to him it was impossible for us to go out, as my father was an invalid and bed-ridden, and there was no person to carry him out; he was confined to his bed then for about eight months; he had been an invalid for years, and it was utterly impossible for my mother and I to carry him out.

Mr. Roney: After hearing your reply would they continue to blast? A. Certainly; when the doctor called to see him he was very low, and he said he would give me a certificate to go to the Board of Supervisors to prevent them from blasting. I thought Mr. Hackett would come and make things satisfactory, but he never made his appearance. I never spoke to Mr. Hackett but once during that time.

Q. They did not make any proposition to purchase the house, did they? A. They made a proposition once there, but it was not satisfactory and we would not accept it. I was willing, if they had come to any satisfactory terms, to move the house, but it was impossible before the bank went down.

Mr. Enos: You have received no compensation at all for your property? A. Never received five cents from them.

Q. They did not forget to tax you for it? A. No.

Timothy Murphy.

Called.

Mr. Enos: Mr. Murphy, where do you live? Answer—206 Union Street.

Q. Is that in the vicinity of where this seawall was constructed? A. Yes, sir.

Q. Did you own a lot there? A. Yes, sir.

Q. Did you live there? A. Yes, sir; I had two houses there.

Q. On what streets were they located? A. Union Street, 69 feet through to Sansome; 60 feet deep; two houses.

Q. There was a house on each end of the lot? A. Yes, sir.

Q. Was your property injured? A. Yes, sir.

Q. How was it injured? A. Heavy blasts shook the house and frightened our tenants; the property was injured very much.

Q. What value do you place upon your injury? A. One house cost me $800 about three years ago.

Q. What damage has been done to your property; how much less is your property worth to-day than it was before they commenced the blasting? A. I conclude $2,000 less; no one would live in the houses.

Q. Have they blasted into your lot? A. No sir; they blasted away from me, but it shook all the property, the whole buildings.

Q. Is any of the surface of your lot gone? A. Yes, sir.

Q. How deep did they blast by your lot? A. About 120 feet.

Q. How can you get in from Union Street to your house? A. Go around the hill.

Q. How did you get in there before? A. There were steps going up Union; we cannot get in that way at all now.

Q. Have you ever received any compensation for the damage done to your property? A. No, sir.

Q. Was the material that was blasted there taken and put into this seawall? A. Yes, sir.

Q. Was it done by Hackett, English & Co.? A. Yes, sir.

Q. Was any dirt or rock taken from your lot? A. Yes, sir; a lot.

Q. Do you know what became of that which was taken from your lot? A. It went about 120 feet down the hill.

Q. You could not very well get it back? A. No, sir.

Q. Did you sign any petition for the grading of the street? A. No, sir.

Q. Were you asked to sign any petition? A. No, sir.

Q. You have not been compensated in any way for this damage? A. No, sir.

Q. Did you protest against it? A. Certainly I did.

Michael O'Neil.

Called.

Mr. Enos: Where do you reside? Answer—Alta Street.

Q. In the vicinity of section five of the seawall? A. Yes, sir.

Q. Did you have any property there? A. Yes, sir.

Q. How much? A. 25 by 60 feet, sir, adjoining Mr. Murphy.

Q. Was that your building upon it? A. Yes, sir; a house.

Q. Any other house? A. No, sir; house and fence.

Q. Has your lot been affected by these blasts? A. Yes, sir; there is about ten feet standing now, and the rest has all gone down the Alta Street side.

Q. What was it worth at the time of the excavation? A. $1,000.

Q. What is it worth now? A. I could not say how much it is worth now.

Q. Is the building there still? A. No, sir; it was knocked down.

Q. The building has gone down? A. Yes, sir.

Q. Where? A. Into the quarry.

Q. How deep have they excavated around you? A. About 125 feet.

Q. Has the building gone right down there? A. Clear down through.

Q. You had to move out and vacate your lot? A. Yes, sir.

Q. It is unoccupied? A. Yes, sir.

Q. What do you consider your damage? A. About $700.

Q. What became of the stone and dirt that went from your lot? A. It was put into the seawall.

Q. You know that to be a fact? A. Yes, sir.

Q. Do you know whether any blasts were put into your lot? A. No, sir; I watched that.

Mr. Roney: Was it by the blasting that this portion of your lot tumbled down? A. Yes, sir.

Q. It was by the action of the blasts? A. Yes, sir.

Q. Did you enter a protest against their grading that street? A. Yes, sir; to the Board of Supervisors.

Q. What action did they take in the matter? A. I could not say what action they did take in it; we sent a petition to them.

Q. Yourself and all the other property owners combined and presented their protest to this action? A. Yes, sir; and the Board of Supervisors took no action whatever.

Q. What Board was that? A. The old Board, sir.

Q. Not the present Board—the last Board? A. The last Board, sir.

Q. Mr. Hackett or Mr. English, or any of their agents, never made any compensation to you? A. No, sir.

Q. They did fire off blasts and scatter the rock around in all directions, did they? A. Yes, sir. I showed a piece of rock to Mr. Hackett out of my yard. I said: "This is a queer way of doing business." It came from the bottom of the quarry.

Mrs. Ellen Burdette.

Called.

Question—Where do you live? Answer—222 Chestnut Street.

Q. Where the seawall was being built? A. No, sir; but my property was there.

Q. Did you own property in that vicinity? A. Yes, sir.

Q. How much? A. 43 feet fronting on Alta Street, running 120 feet back into Union Street; I own from one street to the other.

Q. Is it improved? A. Yes, sir.

Q. What is on it? A. Four houses on it; one house was injured that brought me $24 a month.

Q. To what extent has your property been injured? A. I cannot really say; the house used to bring me $24 a month.

Q. That is destroyed? A. Yes, sir.

Q. It is untenantable now? A. Yes, sir.

Q. Owing to the blasts that have been made? A. Yes, sir. The family that was in there said the blasts shook the house so that it broke some of the panes of glass, and they moved out.

Q. Has there any other damage been done to your property? A. Yes, sir; I have a small piece on Sansome Street; the house that was on that fell down. It was tumbled over and I took the house down.

Q. What was the size of that lot? A. It was only 10 feet by 125 feet deep; that is injured; all gone down; the lot is all gone; it is no more use.

Q. What damage has been done to that? A. I suppose five or six hundred dollars.

Q. What became of the rock and dirt that was taken from your property? A. I dare say Mr. Hackett took it for the seawall.

Q. Was it thrown down by the blasts for the seawall? A. Yes, sir.

Q. Was your house occupied? A. Yes, sir.

Q. One house brought you in $24 a month, and you have been deprived of that, and that is worthless? A. Yes, sir.

Q. How long have you been out of the use of that? A. About eight or nine months.

Q. Has the lot independent of that also been injured? A. It is not injured, but of course it has decreased in value.

Q. Has it injured the property generally from this excavation that has been made? A. It has injured it so that it will never bring the same rent to me.

Q. Have you signed any petition? A. No, sir.

Q. Have you ever given your consent for any of this excavation? A. No, sir. Mr. Hackett came up one time and I told him the windows were broken and the pictures were all shook off the walls, and he says, "How much will you take for your property?" I says, "I don't know how much my property is worth." The property is worth a great deal more to me.

Q. You never received any compensation? A. No, sir.

Q. Have you ever received any offer? A. No, sir.

Q. Have you ever demanded any compensation? A. No, sir.

Eliza Kelleher.

Called.

Mr. Enos: Where do you live? Answer—No. 713 Front Street.

Q. Do you own any property in the vicinity of where this seawall was built? A. Yes, sir; owned two houses and two lots, 205 and 207 Union Street.

Q. What size lots? A. My lots are 45 feet 10 inches front, and 68 feet 9 inches deep.

Q. What was the value of your property before anything was done to it? A. I would not take $4,000 for it.

Q. What has been done, if anything? A. It is all damaged; my two houses thrown down, my lots and everything gone.

Q. Did you ever sign any petition? A. No, sir.

Q. Nor give any consent? A. No, sir.

Q. Have you ever received any offer for your property? A. Mr. Schuyler made me an offer when the first house went down. He says: "Is that other house out there rented?" I said, "No; why?" "Because it would not be safe for anybody to live in it." He said, "Go up and live in it yourself, and you will get killed, and you won't want any damages."

Q. Did you live in that neighborhood? A. I lived on Front Street.

Q. Do you know whether the rock and dirt that was taken from your lot went into this seawall? A. I was there every day, and I took particular notice where my stuff went; it went into the seawall; I followed the carts to make sure what they did with it.

Q. There is no mistake? A. No, sir.

Q. You protested against their damaging your property? A. I did, sir.

Q. Who did you say made that proposition to you? A. Mr. Schuyler, sir.

Q. You did not accept his proposition? A. No, sir.

Q. The house fell down? A. Yes, sir; and the two houses fell down.

Q. You are pretty positive that the dirt and rock that went from your lot went into the seawall? A. I followed the carts and saw where it went.

Q. Do you pretend to say that the entire surface of your lot is gone? A. No, sir.

Q. How much is left? A. I would not say particularly; I think maybe one quarter of the lot stands.

John Wrixon.

Called.

Mr. Enos: Where do you live? Answer—209 Union Street.

Q. How large a lot do you own there? A. 22 feet 11 inches front by 69 feet deep.

Q. Was that your home? A. Yes, sir.

Q. Did you live there in the house? A. Yes, sir.

Q. Has your lot been damaged by construction of this seawall? A. The house is all shook and the ground broke under it, and the windows are broken. I complained to Mr. Schuyler about it and he never came near me.

Q. Quite a portion of your lot is gone? A. No, sir.

Q. Your property has been injured? A. Yes, sir.

Q. To what extent has it been injured? A. $1,500.

Q. Did you sign any petition to grade any streets? A. No, sir.

Q. You protested against the grading of the street? A. Yes, sir.

Q. Did you tell the contractors that they were damaging your property? A. I told Mr. Schuyler so.

Q. What satisfaction did he give you? A. He wanted to know my name and I gave it, but he never paid me anything or never offered to pay me.

Mr. Roney: What were the grounds of your protest against grading the street? A. My property would slide down hill.

Q. Did you state that to the Board of Supervisors? A. No, sir, I did not; I supposed they knew what it meant.

Bernard Ward.

Called.

Mr. Enos: Where do you live? Answer—209 Union Street.

Q. In the vicinity of the seawall? A. Yes, sir.

Q. Do you own a lot there? A. Yes, sir.

Q. What size? A. 25 feet by 69.

Q. Any improvements upon it? A. Yes, sir. I have been living there for 26 years; that house there cost me $1,300; the lot cost me $700, 27 years ago.

Q. What did you consider the property was worth before any injury was done to it? A. I consider the property ought to be worth $1,700, at the very lowest.

Q. And has that property been injured? A. I have not lived in the place for the last seven months. I was afraid the whole place would go down.

Q. Have you been compelled to vacate? A. Not compelled.

Q. You thought it not safe? A. Yes, sir.

Q. And moved away? A. Yes, sir; right in the rear of where we lived 25 feet has gone.

Q. You consider your property has been damaged? A. I consider it damaged when I do not think it is safe to live there.

Q. Does it remain idle? A. No; some of those parties that had to move from those other places came and moved into my house. About a week after, they came and said it was not safe to live there, and would not pay the rent. They did not think it was worth while to pay rent.

Q. Did you sign any petition? A. No, sir; all the petition I signed was to tell the Supervisors to stop.

Q. There has been a great deal of damage done to private property? A. Yes, sir.

Q. And it has been taken to fill up the seawall? A. Clear from Green Street, right across to Filbert Street, right within two blocks. Any rock that was any good they sent across the bay; they put it aboard a barge and took it across the bay.

Q. To the Oakland side? A. Yes, sir; all the rock that was any good.

Q. A good deal of rock has been sent over there? A. Yes, sir; any amount of it. I believe they contracted there for eighty thousand tons, if I understand things right, and I believe I am about right there.

Q. You say you think about eighty thousand tons was taken from those two blocks and sent over on the Oakland side? A. Yes, sir; I believe that was the contract. I do not know whether it was all taken from those two blocks. I saw it taken on board the scow myself.

Q. Who took it from there—what party? A. I could not tell you. I believe Hackett had something to do with it; I am not certain, but I believe he had.

Q. A large amount of rock was taken from these blocks you speak of and taken over to the Oakland side, as well as for building this seawall, section five? A. Yes, sir; I saw some of the rock going across there.

Mr. Roney: Have your neighbors taken any steps at all to be, either individually or collectively, compensated for the damage done to you? A. Not that I am aware of. I am not aware that anybody made any motion to get any compensation, more than they wanted to stop the grading in the first place.

Q. You are aware that these contractors have remaining in the hands of the Harbor Commissioners still twenty-five per cent of the amount of their contract? A. No, sir; I am not aware of anything of the kind.

Q. Why do you not take some steps to get some of that twenty-five per cent, any way? A. I suppose we would if we knew the way to do it, but I don't suppose there is any of us smart enough to do it.

Q. There are plenty of lawyers in the town to aid you? A. I suppose they would.

Mr. Enos (to Mr. Manson): Mr. Manson, how long is it before the three months expire after the completion of that contract; can you tell me?

Mr. Manson: It expires about the middle of this month.

Q. It will not expire, will it, until all the dirt and everything has settled, and no holes to be filled up? Is there not some provision here in relation to that? A. Yes, sir.

Mr. Roney: Do you know of any one who signed that petition?

Mr. Ward: Nobody signed any petition, not that I know of.

[One of the witnesses previously examined here remarked that the petition was signed by Mr. Fitch and Mr. Johnson, who live on Sansome Street, east of Union Street.]

Mr. Enos: Mr. Manson, was anything said in your presence by the contractors in regard to signing this contract when that eight-hour clause was put in?

Mr. Manson: Yes, sir; an objection was made.

Q. Who was present besides yourself? A. I think all the members of the Board were present, and the Secretary.

Q. What was said when the contractors refused to sign this clause that was in the agreement? A. They did not refuse to sign it. They simply objected to it, for the reason that it had not been stated in the specification. The President of the Board spoke to me, and I told him I did not think it was at all necessary to put that in the specification.

Q. Was there an agreement by the contracting parties to this agreement that that eight-hour law was not to be enforced? A. No, sir. It was put in the contract.

Q. They objected to signing the contract. Did the Harbor Commissioners make any agreement that that would not be enforced? A. None that I know of, sir.

Q. You have no knowledge of it? A. No, sir.

Q. So far as you are concerned as Engineer, having, under that contract, supervision of that work, there has been no effort, to your knowledge, to enforce that provision? A. No, sir.

At this point the further investigation was adjourned to Wednesday, June 10, 1885, at 7:30 o'clock P. M.

JUNE 10, 1885, 7:30 P. M.

T. C. COOGAN.

Called.

MR. DAYS: You are the attorney for the State Board of Harbor Commissioners, are you not? Answer—Yes, sir.

Q. How long have you held that position? A. Since May, 1883.

Q. What are your duties in relation thereto; what I mean by that is, you do more really than ordinary attorneys—draw contracts, do you not? A. I attend to all actions brought by the Board, and all actions brought against the Board, and give advice generally in relation to the business of the office.

Q. Did you draw the contract for building section five of the seawall; if not, who did? A. The last one?

Q. The one let to English a year or more ago. This is a copy of the contract and specifications [handing witness a paper]. A. I do not remember whether I drew that contract or not.

MR. ENOS: I think the testimony is that he did not draw the contract.

THE WITNESS: I do not remember.

Q. Were you present when it was signed, Mr. Coogan? A. I do not recollect that. I draw very few of these contracts. They are all in printed forms; but when there is anything difficult the clerk in the office sends for me. I have drawn but very few.

Q. Governor Irwin testified it was let to English alone, but English and Hackett testified here that it was let to several of them.

MR. ENOS: They testified there were four in the contract—Mr. English, Mr. Hackett, Mr. Wagner, and Mr. Schuyler. A. The contract will explain that; it speaks for itself.

MR. DAYS: The contract only shows one. A. Then, I suppose, the bid must have been by one.

Q. Do you know whether there were any other bids than that made by Mr. English? A. My recollection is there were quite a number.

Q. How do you arrive at the fact as to who is the lowest bidder when two or more persons, companies, or corporations bid for the work? A. I have nothing to do with that; that is attended to by the Commissioners; I am seldom there when bids are received.

Q. Then you have nothing at all to do with the letting of bids? A. Nothing.

Q. Your advice is not asked? A. No, sir; unless there is something unusual about it. Occasionally there is a protest filed by the bidder; then they telephone for me, and I go down and advise in reference to it, so far as I am able.

Q. If two or more persons, companies, or corporations were to bid for work, and the lowest bidder had the reputation of slighting work and doing it in a flimsy manner, while the next lowest bidder had the reputation of doing work well, which would be considered the lowest bidder? The idea of that question is, whether if John Jones bids for a contract $2 less to do the work than William Smith, and you knew that Smith was a more reliable workman and would do the same more than $2 better, would the law compel the contract to be let to John Jones? A. No, sir; as the law is framed, the Commissioners have power to reject all bids.

MR. ENOS: They have discretion? A. Yes, sir.

MR. DAYS: I know they have the right to refuse all bids; but will they, in this case? A. I could not tell; but under the law, I think the Commissioners have the power to reject both.

Q. Suppose they did not reject both, but took one of them; they would be likely to take the one that would do the best work for the money? A. I should think so.

Q. Was any other person than Mr. English recognized by the Board as parties to the contract in building section five of the seawall? The law provides, I believe, that after the contract is let that he cannot take any person in with him unless by written request. Do you know whether that was done in this case or not? A. I think not.

Q. If any person, company, or corporation takes a contract from the Board of Harbor Commissioners and fails to carry out the provisions of the contract, what course would you pursue as attorney of the Board? A. I would do as the Board instructed me; I am subject to the Board. The State is abundantly secured in those cases by bonds. If the contractor is pecuniarily responsible, I should proceed against the contractor, if it was left to me to pursue my own course. If the contractor was not resposible, I should proceed against the sureties on his bonds.

Q. Why are persons making bids for a contract with the Board of Harbor Commissioners compelled to inclose a check or bond; that is, for the bid? A. As a guarantee of good faith, and so as to protect the State from loss. The State incurs some expense by way of advertising, which is considerable.

Q. How much did Mr. English place in the hands of the Board as a guarantee for the faithful performance of the contract? A. I do not know; I suppose only what the law calls for.

Q. Do you know whether it has been returned or not?

Mr. Enos: What is the amount? A. Ten per cent; I have nothing at all to do with the contract.

Mr. Days: Whose duty is it to decide when a contract has been faithfully performed? A. The Board's.

Q. Has it been decided that the contractor faithfully performed all the conditions of the contract in building section five of the seawall? A. I do not know.

Q. If he has failed in fulfilling any material provision of the contract, does he not forfeit his bond? A. Forfeit is a pretty broad word. Do you mean, is he liable upon his bond?

Q. Of course he would be liable at a suit at law; but I mean could not the bond be forfeited without going to law? A. No, sir.

Q. When the law provides for certain things being placed in the contract, are not those things material, and is it not the duty of the contracting parties to see that they are faithfully performed? A. Are you asking me my opinion as a lawyer, or as a man?

Q. I am asking for your opinion as the lawyer of the Board? A. I do not have anything to do with the Board's duties. I have nothing to do with them except to obey their orders.

Q. You are their legal adviser? A. Yes, sir; whenever I am asked.

Q. When anything occurs that they do not understand, they would naturally ask your advice? A. Yes, sir; and I would advise about anything they asked me.

Q. This seems to me a very simple question for a lawyer. When the law specifies for certain things being placed in the contract, are not those things material, and is it not the duty of the contracting parties to see that they are faithfully performed? Contracts are generally between two parties, but there are contracts that affect three parties. Now, this investigation is really in the interest of a third party; that is, in the interest of a party that is not one of the contracting parties, neither the contractors nor the State Board; I mean the people, the workingmen and others. Don't you think that a very plain question to put to a lawyer? A. You are asking me a legal conundrum. You and I know that a lawyer does not want to express an opinion unless he has given the question some thought; I do not, especially in my dealings with the Board. I try to examine every question that is submitted to me with a great deal of care, and before giving any legal opinion, I should want to examine the question.

Q. I should think the law would not specially provide for the insertion of any clause in the contract between the State and the contractor, unless the law considered it material. Now, I should consider it material? A. You have had more experience than I have had, Mr. Days, and why not be satisfied with your own judgment upon that question?

Mr. Enos: Here is a clause in this contract: "It is expressly stipulated that eight hours of labor shall be a legal day's work under this agreement, and all the provisions of Chapter X, Title VI, of the Political Code applicable thereto, are to be determined as incorporated herein." Now, that is a part of that contract; that is the law of the State and Constitution; that is put in there, and under the law of the State you are the legal adviser of that Board, not only to prosecute and defend, but render such legal services as may be required. Mr. English takes that contract with this provision in it; he goes on and does the work, executes that portion of the contract. I suppose that is what Mr. Days wants to get your opinion in relation to. Now, suppose that is not lived up to, is there any power to make anybody live up to it? How does that affect the contract if the Board of Harbor Commissioners should see fit to act upon that as a forfeiture, or non-performance, or violation of that contract? A. You are aware of what the Supreme Court of the State and the United States have said in relation to that question. There is a decision here in the California Reports in relation to some municipal work.

Mr. Days: It is my opinion that it does not touch us at all. I did not know of it until Governor Irwin testified about it, and in my opinion it does not strike this question at all. That would be my opinion as a lawyer. I am satisfied that the Boards of Harbor Commissioners have been considering that under that decision this clause was not binding. Of course I do not know whether you understand the object of this investigation. As far as I am concerned, the object of the investigation is to get at why we have certain laws upon the statute books and those laws not enforced. That is one of the objects. Another object is to inquire into our system of labor. Of course it is not to cinch anybody, or to get the means of cinching anybody, nothing of the kind as far as I am individually concerned, and I do not suppose it is as far as anybody else is concerned.

The Witness: The question is, why this provision of the contract has not been enforced. With that I have nothing to do. That is a question of the Board's. I have nothing to do with enforcing the contracts any more than the humblest laborer.

Mr. Enos: Has your opinion as attorney of the Board been solicited by the Board? A. I think they were in relation to this contract or some contract the Board asked me in relation to that question; and I remember at that time, I believe, we had occasion to examine the same question, and I read the decision of our own Court in 38 California, Drew and Carroll vs. Smith, and a decision in 94 United States Reports, and also a decision of Judge Lawler of the Superior Court here, and there was some dictum of Judge Sharpstein's in the Coster case, 60 California. In fact, I read everything in my reach bearing upon the question, and I thought then that the case in 38 California did apply. That is the case you refer to?

Mr. Days: That is the case; Drew and Carroll vs. Smith.

Mr. Enos: What year was that rendered?

Mr. Days: In 1869.

The Witness: The ten-hour law was passed in 1853, and the tenor of the law remained until 1868, when the eight-hour law was passed. The first or second section, which is the section adopted in the Code, had no provision in it, or no penalty for its non-performance, but section four of the same Act in relation to the employment of minors had a penalty, and when the Code was adopted they engrafted into it the substance of the law of 1867 and 1868. Drew and Carroll vs. Smith was decided in 1869 or 1870, and it was in relation to this provision which was subsequently adopted in the Code.

Mr. Days: Mr. Smith, the Street Superintendent of this city, in drafting a contract which the Supervisors had let to some individual, Drew and Carroll I suppose, put into that provision of the law a penalty, a forfeiture of all his rights to any pay. That was the question that went before the Supreme Court, and the Supreme Court decided that when the Legislature had not put in the statute a penalty for the violation of a law that an executive officer could not do it, and that really is the decision. Judge Sanderson stated that parties working under these contracts can sue for all the time over eight hours a day. Three of the Judges put that statement in, and my opinion is that decision does not really affect the eight-hour law.

The Witness: During General Grant's administration Congress passed an eight-hour law, and shortly after he issued a proclamation concerning it. Shortly after that the question concerning the legal effect of that provision of the Act of Congress came before the Court of Claims, and an appeal was taken to the Supreme Court of the United States, and the Supreme Court of the United States has laid down the same ruling as Drew and Smith.

Mr. Days: That there was no penalty? A. Yes, sir; if you remember, that the fourth section regarding the employment of minors had a penalty; this ought to have——

Mr. Enos: Your opinion is that it requires legislation to make this effective? A. Yes, sir, and some penalty attached to it; that is my judgment of it.

Q. Where you employed Mongolians it says under penalty of forfeiture of the contract? A. Yes, sir; there was a penalty attached in that case.

Mr. Days: Did Mr. English object to sign the contract on account of certain provisions; and if so, how were his scruples overcome. He states that you were present? A. If he states so it must be so and probably was so. He would remember it better than I would.

Q. Did you as attorney for the Board tell Mr. English that the provisions in relation to the eight-hour law were only inserted to carry out the mandate of the statute, and need not be enforced? A. I do not remember telling him so.

Mr. Days: He testified to that.

Mr. Enos: He says it was not in the specification; but when inserted in the agreement his attention was called to it and he protested against signing the contract, as it was not in the specification? A. If I said anything in relation to it, I said it in the light of the decision of the Supreme Court of the State. Of course these things are not fresh in my mind. When I reflect, I think there was something said in relation to that matter; and, if I remember correctly, I got the decision of the Supreme Court and read it at the time. It was there in my office.

Mr. Days: That is, to show there was no penalty for the violation of it? A. I do not know for what purpose it was read. It was read because of some question that came up there. I think in the specification there was no such provision, if I remember correctly that is the way; in the printed specification that provision was omitted.

Mr. Enos: That is, the specifications which were advertised? A. Yes, sir. But it is inserted now. When the contract came to be prepared, this provision was inserted in the contract, and Mr. English demurred to the execution of the contract because this was something he had no reference to when he made his bid. My opinion was then asked in relation to the legal effect of it, and I got the decision of the Supreme Court of the State and read the decision there which determined the legal effect in such a provision.

Mr. Days: Mr. Coogan, I ask you as an attorney in the employment of the State, what do you consider State or public work? Do you consider all work performed by the State public work—I mean, whether by contract or otherwise? A. The Supreme Court in that Alameda County case the other day said something about that. I think the Supreme Court has determined the meaning of those words, Mr. Days. If I was in my office I could give you the case, but I do not recollect it at this moment.

Q. Suppose the State employs persons to do certain work; for one half of the work it agrees to pay by the lump or contract; for the other, it pays by the month, week, or day; is one part State or public work, and the other not, or is there any difference? I suppose that would come under the same provision that the Supreme Court decided? A. Yes, sir.

Q. If A makes a pair of boots for B, and B refuses to pay for them, A can keep them, or otherwise dispose of them, can he not? A. I should think so; yes, sir.

Q. Then if C builds a section of the seawall two thousand feet long, and the Board of Harbor Commissioners refuses to pay for the same, can C keep the section and collect tolls, or sell the section to private parties? That is a very plain proposition, and can be easily answered. Of course the contractor could not do it. A. I do not think he could.

Mr. Enos: Certainly he could not sue the State.

Mr. Days: What remedy would C have in the premises? That is what I wish to get at. A. Off-hand, I should say he would be obliged to apply to the Legislature.

Q. Now, Mr. Coogan, I ask you as an attorney in the employ of the State, if in your opinion the law which provides that eight hours shall be a legal day's work is not intended to cover all persons, whether engaged to do a day's work, a week's work, or a month's work? This covers another point. What I mean by that is, the law says eight hours shall be a day's work. Now, if the State employs me to work for it, would it make any difference whether I was engaged by the day, engaged by the month, or engaged by the year; would not that eight-hour provision cover my case? A. I think so.

Q. Then, in your opinion, if A is employed by the State at a monthly salary, and his chief compels him to work ten or twelve hours a day, it is a violation of the provisions of the eight-hour law? Simply because he is supposed to be employed by the week or by the month, if he works twelve hours he violates the provisions of the eight-hour law; is that your opinion? A. I refer you to the Supreme Court of the United States on that question, 94 U. S.; that is the question decided there. I may be wrong, but that is my recollection.

Q. If A, a servant of the State, to obviate the eight-hour law, engages B at so much per hour, and works him ten hours per day, would not that be a violation of the eight-hour law, or does that come under the same decision? A. That is Drew vs. Smith again. Judge Sanderson discussed that very identical question.

Mr. Enos: Judge Sanderson says they can sue and recover? A. Drew vs. Smith, 38 Cal. Judge Sanderson discusses that question. Judges Sawyer, Rhodes, Sanderson, Crockett, and Sprague are in that case.

Mr. Days: Are you acquainted with the history of the eight-hour movement in this State? A. In a general way; yes, sir.

Q. Mr. English testified that the men working under him on the seawall contract worked ten hours per day; was not that a violation of an express provision of the contract, and if so, whose duty was it to see the law enforced in that respect? A. That is exactly what the Supreme Court decided.

Q. No; I am asking whose duty it is to see the law enforced? A. That is what the Supreme Court has determined, whose duty it was to enforce it, and what it means, in Drew vs. Smith.

Q. Then, of course, it is neither the duty of the Board nor its attorney to attend to that? A. I have nothing to do with anything except what I am instructed to do by those gentlemen, by the Board. I do not know whether Mr. English worked his men eight or ten hours, or how many men he employed. I have nothing to do with that. My duties, I assure you, are very onerous.

Q. You know what the law of contracts is, Mr. Coogan. What I mean by that is, how contracts are enforced? A. I know something about it.

Q. If A contracts with B to do a certain piece of work in a certain way, and within a certain time, and fails, what recourse has B? Has he any other recourse than the Courts, that is the point? A. I think that is the only course.

Q. Mr. English contracted with the State Board of Harbor Commissioners to build section five of the seawall, and work his men only eight hours a day; he failed to live up to his contract in this respect; whose duty is it to vindicate the offended majesty of the law? A. It is not the duty of the Attorney of the Board.

Q. It is not his duty? A. No, sir.

Q. Would it be the duty of the Board? A. You put me in a delicate position, to ask me to express an opinion as to the duties of my superiors.

Q. Mr. Coogan, if Mr. English had put stone in the front of the seawall that the Engineer would not accept, whose duty would it be to see that that stone was taken out and proper stone put in? A. I do not know.

Q. Certainly you know? A. I do not know anything about the duties of the Board, or the duties of the Engineer or the clerks, any more than you do; any more than what the statute says in relation thereto. I know that.

Mr. Enos: Does not the statute give full authority to the Harbor Commissioners to enforce all contracts? Are not all contracts under their supervision and control? A. Contracts made by them?

Mr. Enos: Yes. A. I suppose so.

Q. As their legal adviser, suppose they called upon you for your opinion in relation to their power to enforce a contract and its provisions. We will take this case. What would be your advice to the Board under those circumstances? A. I should take the matter to my office and examine it with care. Then I would put my advice in writing and file it in the office of the Board, where it is open to the whole world to view at all times. I do not put my views in writing unless the Board gives me abundant time to examine the matter. Sometimes I do not have time to mature my views, but I generally put them in writing and file them there.

Mr. Days: Do you know of any difficulty between the contractors and the residents of Telegraph Hill; or that part of the hill where he procured his material to build the seawall? A. I know nothing about it.

Q. If the property of any of the said residents was used without their consent, and put into the seawall, would not the State be morally liable in damages; supposing, of course, they could not collect from the contractors? A. I am inclined to think, under the decision of the United States vs. Lee, that the State would. That case you are familiar with, are you not?

Mr. Days: No, sir; I am not.

The Witness: That was a case occurring out of the taking by the United States Government of a cemetery at Georgetown, and the descendants of General Lee brought an action against the United States Government; and the Supreme Court of the United States took a great step in advance of the prior decisions upon the question of how far the State could shelter itself under its sovereignty, and the principle laid down seems to be that, although on general principles the State cannot be sued, where the State has property in its possession belonging to a third person, that the State is amenable. When the question came up about the United States Mint here, the same principle seems to be followed there. Under the principle followed in that case, and the Lee case, it seems that the State would be liable where it has property belonging to individuals.

Mr. Enos: I do not know as I understand your proposition.

The Witness: That the State cannot be sued in its own Courts. It is a sovereignty, but where the State has property in its possession, belonging to a third person, then the State cannot protect itself, or cannot shelter itself under the claim that it is a sovereignty.

Mr. Enos: One of the questions here that interests a great many people that have had their property damaged—of course, it is not a question for me to decide, but I think this investigation will necessarily bring it out very prominently, as stated by Senator Days here—is whether this eight-hour law needs any amendment or penalty attached to it; and a second question is in regard to contracts on all public works, whether it would not be for the interest of the State to do it by days' work rather than by contract.

The Witness: I would be glad to coöperate with you and aid you in any way in my power.

Mr. Enos: Of course, we have nothing to do with this matter but to report the testimony, and whatever report I see fit to make upon the testimony, and my conclusions; but as we are in this investigation, and there is no use disguising the fact, there is a widespread interest in relation to these two great questions, especially among all the laboring people of this country. This eight-hour law has never been enforced that I know of, and they want to know the reason why, and if there is any defect in it they want to know it and amend it. And this is the object of this investigation; and the position you have occupied has called upon you to make a thorough investigation of all these questions.

Mr. Days: If the work had been done by days' labor, instead of by the job or contract, would not the State be responsible for the laches of its employés just the same as an individual? A. I suppose so.

Q. One lady testified that her property was stolen and she followed it day after day and saw it dumped into the seawall; that she could get no satisfaction from the contractor; is not the State the gainer by her loss and morally bound to see her paid? A. I should think so.

Robert Geer.

Called.

Mr. Days: Please give your name in full, and occupation. Answer—Robert Geer. I generally work on dredging work. My business has been mining.

Q. How long have you worked at mining? A. I have followed it since the spring of 1862.

Q. Did you work for Mr. English in building section five of the seawall, and if so, in what capacity, and how long? A. I cannot exactly say how long. I worked for him drilling. I commenced about the time they commenced, or little afterwards—a few days afterwards.

Q. You do not remember how long you worked? A. It must have been in the neighborhood of two months—something in that neighborhood.

Q. What wages were you paid, and how many hours did you work each day? A. I was paid $1 75 a day, and I worked ten hours.

Mr. Enos: Are you an experienced mechanic at that business? A. Yes, sir.

Mr. Days: Who hired you, who set you to work? A. Mr. English hired me, and sent me down, and I was put to work by Mr. Gray.

Q. Mr. English hired you? A. Yes, sir.

Q. Did you board at any of the boarding houses near the work? A. No. I board at home with my family.

Q. Are you sufficiently acquainted with excavating to know the different methods used, and which are the safest? A. Yes, sir.

Q. Did you consider the work of excavating Telegraph Hill, during your employment, dangerous; if so, give some instances of the danger? A. I considered it dangerous in the extreme, owing to the carelessness of Mr. Gray. I consider him very incompetent, and a very careless man. After a blast would go off, he would not allow the bank to be trimmed off, which, in all cases, is very essential, in order for the safety of the men who are employed.

Mr. Enos: What do you mean by trimming? A. A man would be lowered down, with a rope around his body; he would be lowered down, and would have a crowbar and face off the bank, and with the crowbar break off all the loose rock, and those that might be likely to fall down; trim it off.

Q. That was not done? A. It was done once when I insisted on having it done, or else I would quit. That was the only time I remember it was done.

Mr. Days: What, if any, safeguards were used by the contractors, or their foremen, or any one in their employ, to prevent accidents? A. I could not say as to that. Once in a great while they would have a watchman for a little while, but it was only temporary.

Q. Where were the watchmen placed? A. Right in front of the bank, a little ways from it, so they could see the firing.

Q. Did any accidents occur during your employment; if so, tell what they were? A. There was no accident of any importance. I got hurt there once from a rock falling from the face of the bank when I was drilling, owing to the bank not being trimmed off; but it did not hurt me a great deal, but hurt me for some time.

Q. It might have killed you? A. If it had struck me on the head I firmly believe it would have killed me.

Q. And that could have been obviated by properly trimming? A. In a great measure.

Q. Did any one in charge of the work show any scientific knowledge of excavating so as to protect life and property? A. Not any one, to my knowledge; or, to put it in other words, they seemed to be unwilling to do anything that would increase the safety. They seemed unwilling; whether they knew it or not I cannot say.

Mr. Enos: Why do you say, seemed unwilling? A. Mr. Gray would not allow the bank to be trimmed off, therefore it endangered the lives of the men working there.

Mr. Roney: Had there been proper precautions taken to guard against accidents, would you have known of these precautions? A. Yes, sir; certainly; decidedly so.

Mr. Days: Will you describe the methods of work, and tell the Commissioner what, in your opinion, should have been done to provide absolute security? A. To guard as much as possible against accident, the banks should have been trimmed off, as I have described, and that is about the most that could have been done; properly trimmed off and kept so after every blast; it was necessary to take all the loose rock from the face of the bank wherever it was shook up.

Q. What, in your opinion, would be the difference in cost of labor to excavate a hill such as the one you worked on, properly, with a view to the security of life and property, or do it in the way it was done? A. I could not exactly say, but it would not have cost a great deal more; all it would have required would have been a man lowered down; two men could have done it.

Q. Would not it have been the most secure to have commenced at the top and come down by terraces? A. Yes, sir; that is the proper way, according to my judgment of blasting.

Q. In your opinion, then, what would be the difference in the cost of labor? A. I could not exactly say, sir; it would cost a good deal more to do it by terraces.

Q. Do you know anything about any percentage being paid to any of the foremen by any of the men employed, or by any boarding house keeper? A. Not to my knowledge.

Q. Did you know that all work performed by the State, or any municipality therein, must be done working the men only eight hours per day, whether the work is let by contract or not? A. I was not aware of it.

Q. Would you have taken any steps if you had been? A. Not alone; I would have been willing to have went in with the other men.

Q. Have you any idea how many hours per day would perform all the necessary labor required in the world; of course taking into consideration our present advanced system of labor-saving machinery? Did you ever give any thought to the subject? A. I have not given it sufficient thought to say anything about it.

Q. Have you any idea of the number of men that must be out of employment as long as we are compelled to labor ten hours a day? A. I do not know; but I think there must be a great many.

Q. You think, then, that the sooner we get down to the eight-hour plan, or less than that, the better? A. I certainly think so.

Mr. Enos: You say that the safest way to blast and break down that hill would have been by terraces? A. Yes, sir.

Q. What effect, if any, would it have upon the lots and buildings that were there? A. I cannot say as they would.

Q. Can you tell us how many kegs of powder they would put into a blast? A. Sometimes they would put in 12; they never put in a very heavy load, for fear of danger to those warehouses; 12 and 15 sometimes.

Q. Have they not put in as high as 35? A. They might have, but I never loaded any of the holes; they did not allow us to load any of the holes.

Q. Who was the man who had charge of that? A. I forget his name now.

Q. You think 12 kegs have been put in? A. 12 or 15.

Q. What weight? A. I should judge they might be 25 pounds; I could not exactly say, because I never took particular notice.

Q. What effect would 15-keg blasts have? A. Not very much, except from a very good position; if it was in a point it would have greater effect than on the straight bank; the deeper the hole the more the effect. I remember one hole that I put in myself, right on the point of the hill. I do not remember how many kegs were in it, because I did not look, and it blasted the whole front of the hill and upset their buildings, and liked to fill up the whole thing; but how much powder there was, I do not know.

Q. Do you know what precautions were taken to protect outsiders when blasts were going off? A. They seemed to take necessary precautions in giving all due warning as long as I was in there.

Q. They would have some one to keep people from passing near the place? A. Yes, sir.

Q. Do you know whether any blasts were put into private property? A. I do not know.

Q. You do not know anything about the lines? A. No, sir.

Q. You did not know whether you were in the street or out of it, but put the blast wherever told? A. I was satisfied in regard to the street, but in regard to the property I could not say.

Q. You say you received $1 75 for ten hours' work? A. Yes, sir.

Q. Do you consider that pretty good pay? A. I do not.

Q. You are a man of family? A. I am.

Q. Is that adequate for your support? A. No; that was one of the reasons I quit, but not the only reason. I quit, also, on account of the great danger.

Q. Did you protest against the manner of their leaving their rocky embankments? A. I did tell Mr. Gray.

Q. What reply did you receive? A. He would walk off and not say a word, and on one occasion, when I was putting the powder in this same hole that did so good execution, I told him that when the noon hour came to send up a couple of men to trim the bank off and make it safe for me; he did so at noontime. That was the only time I remember that he ever tried to do anything; I regard Mr. Gray as a very careless man.

Q. Was he the man who had charge of it? A. He was the head foreman on the work.

Q. You say you followed this business as miner, for how long? A. Since the spring of 1862.

Q. What has been your usual number of hours per day, and your wages? A. $3 a day, and then came down to $2 50 for ten hours' labor.

Q. Have you ever worked at this business of blasting until you worked on the State works here, for less than $2? A. Never for less than $2 50.

Mr. Days: What contract did they make with you in regard to pay? A. When I went there to go to work, I asked Mr. Gray what the wages would be; he said $2, and I told him that was very little for that kind of work. He says, "We do not expect you to handle powder." Says I, "I am competent for all that sort of thing, and would like to get pay for it," but I went to work at $2.

Q. Was anything said about the number of hours? A. There was nothing said about hours. The third day after I went to work, Mr. Gray came around in the forenoon and notified all the men that were drilling that at noontime of that day the wages would be reduced to $1 75, and all those who did not wish to work of course could quit. We worked on, a good many of us, and they never paid us $2 for those two days and a half that we had worked previous to the notification.

Q. They really owe you that on the contract? A. Yes, sir.

Mr. Enos: Have you ever demanded it? A. Never did, because I did not think it was worth while.

Q. You say that it was not agreed how many hours you should work? A. No agreement, because it was understood; at least I understood without asking anything about it.

Q. You did not know at that time that there was a law in relation to it? A. I heard of it, but at the same time I did not give it a thought.

Mr. Days: You know there is a decision of the Supreme Court that you can compel the payment for all over eight hours a day? A. I was not aware of that.

Mr. Enos: Mr. Days means that if you work 60 days, and you work during that time 10 hours a day, you would do 600 hours work; now 8 hours would be a legal day's work, and 8 times 60 would be 480, and the difference between 480 and 600 is in your favor? A. Yes, sir.

Q. In other words you work a quarter of a day at the rate of $1 75 a day; that would be 120 hours in your favor? A. I did not give it a thought, because I did not think it applied to anything but mechanics; therefore I did not give it a thought.

Mr. Days: The same difficulty has been met with in nearly all laws made in favor of the workingman; there has been no one to see them enforced.

Mr. Roney [to the witness]: You stated that Mr. Gray was, in your opinion, a very incompetent person? A. A very careless man; incompetent owing to his carelessness.

Q. Would you explain to the Commissioner in what way Mr. Gray displayed his incompetency? A. From his carelessness towards the safety of the men.

Q. Give some instance of his carelessness, if you recollect? A. I have given one, in which he refused to get the banks trimmed off, which was very essential in order to the safety of the men. Another instance, in which he and I fell out about it, in cleaning out an old hole where it was loaded with giant powder, with a fuse and percussion cap in it. I cleaned it out as low as I deemed it safe, and would not go down and touch the percussion cap, because that would endanger my life. He demanded that I should do so, and I told him no; and he told me he did not think much of a man's knowledge of blasting that would not do it. And I told him I thought far less of a man's knowledge that would do it and endanger his life.

Mr. Enos: Do I understand from this testimony you are giving now, that there was a blast put in and it did not go off, and had to be cleaned out? A. Yes, sir.

Q. You claim that the powder and percussion cap was there unexploded? A. Yes, sir.

Q. Were you asked to go in there and clean it out? A. Yes, sir.

Q. It was from your experience, in your judgment, dangerous? A. Yes, sir; I would not do it for myself, nor for any one else.

Q. Nor would not ask anybody to do it for you? A. No, sir.

Mr. Roney: Was there an understanding where a number of drillers were at work when another hole was charged with a large quantity of powder and fuse, and was there imminent danger of such blasting, through carelessness, of the powder igniting and so exploding, while you were at work? A. Yes, sir; there was one case in which there was a hole put in and Mr. Gray seemed to think it was too far up, therefore, he thought he would put a row of holes down the foot of the hill and take off the foot of the hill; five or seven, five anyway, holes were put in; three men to each drill; I was one of the gang of three. I was not aware that the hole above was loaded until I was almost through, when I discovered that in that hole were 12 kegs of powder all ready to be touched off. I considered that was a very dangerous and careless thing. If he had told us that such was the case, we could have used precaution against any one touching them, but I, for one, was unaware of it, and I did not hear anybody else speak of it until the whole thing was over. I consider that Mr. Gray acted very careless with regard to the lives of the workmen.

Q. You might have let a spark fall from a pipe? A. The least thing; everybody was around and there it was left with 12 kegs of powder in it; the least touch would have blowed us all into eternity; no power could have saved us.

Q. When that kind of work was being done, was it customary for them to have a steady watch on the embankment? A. Sometimes they would, and more times they would not. As a general rule they would not; they might, but as a general rule they would not.

Q. In case of a cave, or in case of an indication of a cave, would it become apparent to the watcher if he was a competent man? A. Oh, yes.

Q. What indications would it give? A. It would give an indication similar to a brick wall cracking; throw out a little dust; then after that little dust was thrown out it might come any moment; that is the warning.

John Ryan.

Called.

Mr. Enos: Where do you live? Answer—Corner of Green and Battery Streets.

Q. Did you work on section of the seawall number five? A. I did, sir.

Q. How long did you work there? A. From the time they commenced till they quit.

Q. How long is that? A. About a year.

Q. What was your business? A. I was at a cart.

Q. How many hours a day did you work? A. Ten hours.

Q. Was there anything said when you went to work there about how many hours you were to work? A. No, sir.

Q. Nothing was said to you? A. No, sir.

Q. What wages did you get per day? A. $1 75.

Q. All the way through? A. Yes, sir; all the way through.

Q. From the time you commenced to the time you quit? A. Yes, sir.

Q. Your general business was filling carts? A. Yes, sir.

Q. During all the time you worked there was nothing said about working ten hours a day? A. No, sir.

Q. Whenever you worked a day you worked ten hours? A. Yes, sir.

Q. All the pay you received was for ten hours work? A. Yes, sir.

Mr. Days: Did you board at one of the boarding houses? A. At the corner of Green and Battery; boarded at one house since the job commenced, and am there yet.

Q. Does the same person keep the house now? A. His brother is keeping it; he is not there himself.

Mr. Enos: How many men worked on this section of the seawall who boarded there? A. I could not tell you that; a good many; the house was full.

Q. How many do you think? A. I suppose 40 or 50.

Q. How came you to board there? A. I went there myself.

Q. Did anybody suggest to you to go there? A. No, sir.

Q. Did you go there because there were some there who worked on the seawall? A. Some of the men I knew were there.

Q. That was the reason you went there? A. That is the reason.

Q. What did you pay per week for your board? A. $4 50.

Q. Did you ever pay anybody any commissions? A. No, sir.

Q. Were you ever asked for any? A. No, sir.

Q. When the contractors that hired you to work and paid you $1 75 a day, did they always pay it in money to you? A. Yes, sir.

Q. Pay it directly to you? A. Yes, sir.

Q. Did they take your board out and pay it to the boarding house man? A. They deducted the boarding house man's money out of it and paid me what was coming to me.

Q. They always deducted the amount of your board out of your week's pay every week? A. Every month.

Q. You were paid every month? A. Yes, sir.

Q. When they come to pay you every month they took out your month's board for the month—$17 or $18 a month? A. Yes, sir.

Q. They never paid that to you? A. They kept that back.

Q. They settled with the boarding house keepers? A. Yes, sir.

Q. Was that the agreement? A. There was no agreement.

Q. Did you authorize them to do it, or did they do it on their own responsibility? A. Their own responsibility.

Mr. Days: Did they ever keep anything more than the board out? A. No, sir.

Q. I mean, did you ever owe for drinks or tobacco, or anything else; or if you got any, you simply paid for them out of your pocket? A. If I got a drink myself, I paid for it.

Q. The idea is this: did the contractor keep out of your pay any amount of money for anything else than board? A. They did not; not a cent.

Q. Mr. English testified in Sacramento, and also here, that they sometimes paid the entire amount over to the boarding house keeper? A. They paid the boarding house master one month.

Q. Did the boarding house keeper pay anything to you? A. He paid us the balance; kept his own money out.

Q. Did you know of any parties paying a percentage to the boarding house keeper, or the boarding house keeper paying a percentage to any of the foremen? A. I do not know anything of that.

Mr. Roney: What was the regular payday, Mr. Ryan? A. The fifteenth.

Q. You were paid regularly on the fifteenth? A. Yes, sir.

Q. You did work pretty regularly? A. Pretty regularly.

Q. Some months you would have broken time? A. Sometimes; I would not feel well sometimes.

Q. Your board went on, of course? A. Yes, sir.

Q. Now, you worked for a year, did you not? A. Yes, sir; I worked there ever since they started until they quit there.

Q. Can you recollect, during that time, the highest amount you received from the paymaster after all your expenses were deducted and paid to the boarding house boss; the highest amount? A. I cannot tell.

Q. Did you get as high as $10? A. I got $10.

Q. Did you ever get $10? A. No, I have not.

Q. Whether you had broken time or not? A. I always got more than $10 for a month I worked there.

Mr. Days: Over and above your board? A. Yes, sir.

Mr. Roney: Was there not during that time there a continuous feeling of dissatisfaction among the workmen as to the wages, and hours, and the general conditions prevailing at that work; did you not hear a great deal of growling? A. Men growling among themselves.

Q. I mean about the work; the manner in which they were required to work? A. Some little growling among them; I did not take notice of it.

Q. Why did you not take notice of it? A. It did not bother me much.

Mr Days: You were satisfied with the amount of pay you received, and did not expect any more?

Mr. Roney: Do you think $1 75 was pretty good pay? A. I reckon it was not, but what could I do; I was not getting any more.

Q. Don't you think you were entitled to more for the work you did? A. I think I ought to be, sir.

Q. You worked honestly for them, did you not? A. Yes, sir.

Q. Don't you think you were entitled to more compensation, more pay, for your work? A. I ought to be, sir.

Q. Did you never growl about that? A. No, sir; I did not growl. No use to growl; if I had growled I would have walked away.

Q. Growled to yourself, I mean? A. I may have growled to myself.

Mr. Days: Mr. Ryan, were you a member of what was known as the Seawall Brigade that took part in the processions? You remember the Seawall Brigade that took part in two or three election processions? A. I do.

Q. Were you a member of the club? A. I was with them that night.

Q. What I want to get at in asking you that question is, was there any inducement held out to the men forming this brigade? A. Not that I know.

Q. Or did they do it of their own free will? A. Mr. Cummings was there, and he was the head.

Q. Who was he? A. A foreman down there for awhile.

Q. Mr. Cummings organized the brigade? A. Yes, sir.

Q. And he made all the workmen on the seawall at the time become members of the club, or brigade, did he? A. Anybody who chose; he did not compel them.

Q. They were not compelled? A. No, sir.

Q. Nothing said about their being turned out of work? A. No, sir; there were plenty there that did not join the club; any man that chose could go, all right, and if he did not, it was not compulsory.

Mr. Roney: Was there any promise made that night, in case Mr. Cleveland became President, that your wages would be raised to $2 a day; was not that made? A. No, not that I know.

Q. You never heard that? A. No, sir.

Q. Was not the wages reduced about that time? A. I believe the wages were reduced after that.

Q. Your wages were continued? A. My wages were never reduced.

Mr. Days: Was there any reason assigned for reducing the wages at that time? A. I do not know what was the cause of it, I am sure. There were men there that were getting $1 75, and went away for a month, probably, and came back again and had to work for $1 50.

Q. Mr. English and Mr. Hackett both testified that several men left during harvest time, and when they came back from harvest they were reduced. But the question to you, Mr. Ryan, was: After the election of Mr. Cleveland, was there not a reduction in the pay? A. It may have been some time after election.

Q. It could not be very long after, because it was not many months after the contract was finished? A. I know the men that were getting $1 75 a day got it, unless they left and wanted to come back again; if they came back they would not get $1 75, but $1 50.

Mr. Roney: If you thought that this investigation was likely to be of benefit to yourself and those engaged in that kind of work, could you not give far fuller testimony? A. I am just giving as I see how things are going on. My pay was never reduced; no one ever said anything to me; I got along there very well.

Q. You think you were paid fully what you ought to be paid? A. I would like to get more if I could; but where is the use; I could not get it.

Mr. Enos: I understand the witness to say he was paid all he could get, but he thinks he ought to have more.

Witness: Yes, sir.

Mr. Days: You did not grumble because you were not dissatisfied, but because it was no use? A. Yes, sir.

Mr. Enos: You did not think it was much use to grumble? A. I have been in California long enough not to kick at what they offer you.

Q. You went to work there and worked from the commencement until near the close of the work? A. Yes, sir.

Q. And received uniform wages of $1 75 a day for ten hours work? A. Yes, sir.

Q. Nothing was said to you about how many hours you were to work? A. No, sir.

Q. Did you know there was a clause in the Constitution of this State making eight hours a legal day's work on public work? A. I heard of it, but I saw it was not to be enforced.

Q. Did you know that when you went to work there? A. Yes, sir.

Q. You joined what was called the Seawall Brigade, a political organization; do you know of anybody who worked upon the seawall that was made any promise to join that organization? A. None.

Q. Of any promise of future award or future increase of pay? A. No, sir.

Q. Do you know of anybody being influenced in relation to any boarding house, or any commissions being paid to any of these foremen if they got men to board at certain places; that the boarding house keeper would give them a commission? A. I do not.

Q. Did you hear of anybody engaged in that kind of business? A. I heard growling among the men.

Q. What did you hear? A. Some little inducement that way.

Q. Tell us what you know about it? A. I was never induced.

Q. Did you hear anything among the men that were boarding at your house, or any other place, that they were charging them certain commissions, and take it out of their pay; you say you heard some grumbling, what did you hear? A. I saw them growling.

Q. What did they say? A. I forget what they said.

Q. You said you heard them growling about it, that they were charged a certain commission? A. I could not be certain.

Q. Did you hear them say they were charged a certain commission because they were boarding at a certain place? A. I could not tell about anybody but myself; it was not charged to me.

Mr. Days: Mr. English and Mr. Hackett both testified that they did find out afterwards that some of the foremen had received a commission, but they would not give the names of the foremen.

Mr. Enos: He heard about one man who was paid as a foreman $150 a month, who made commissions out of their men; and you say you heard some of the men talking about it; what did they say? A. I quite forget what they said.

Q. Did they say they were charged a commission by the foreman? A. I do not know.

Q. You say there was growling about it. You say there were 40 or 50 men boarding at a certain place, and you heard some men grumbling because they were charged something to go to a certain boarding house? A. They growled about the bosses.

Q. The workmen were growling about the bosses. I understood you to say you heard something about their paying commissions?

Mr. Roney: You worked there at least a year, did you not? A. Yes, sir.

Q. Your pay was $1 75 a day? A. Yes, sir.

Q. Your board was $4 50 a week? A. Yes, sir.

Q. And you lost very little time during that year? A. Not a great deal.

Q. Now, how much money did you save during that year? A. I did not save much, sir.

Q. Did you have $10 at the end of the year? A. Oh, yes; more than that.

Mr. Roney: The idea I have, Mr. Commissioner, in putting that question, is to demonstrate that a man can work for an entire year, be ordinarily abstemious, and at the expiration of that year has simply got his living to show for his work.

Mr. Enos: Did you ever figure up how much time you lost? A. Yes, sir.

Q. How much did you lose? A. Perhaps I might have lost three months altogether.

Q. You worked nine months steady? A. Yes, sir.

Q. You say you did not have much money left? A. Yes, sir.

Q. What did you spend it for? A. Oh, there are many ways of spending money.

Q. Did you spend it for clothes? A. Bought clothes, and bought something else.

Q. Did you spend it for tobacco? A. Yes, sir.

Q. For whisky? A. Yes, sir.

Q. What pro rata of that money did you spend for whisky? A. That cannot be helped, sir.

Mr. Days: He could not spend much, according to his testimony. He worked about nine months; three months he did not work. During those three months he would have to pay for his board $18 a month, and it really would not leave very much after the man had got some whisky and a little tobacco.

Mr. Roney: He was depending on this place for his employment, and sought work nowhere else.

Mr. Days: He was satisfied that was as good as he could do.

Mr. Roney: At the expiration of the year he has nothing to show for his year's labor but his living, so that the man's condition, I want to demonstrate, is little worse than the condition of the black man's during slavery.

Q. Are you at work now?

Witness: Yes, sir.

John Doonan.

Called.

Mr. Days: Did you work for Mr. English on section five of the seawall? Answer—I did.

Q. How long did you work? A. I cannot exactly tell you; about five months.

Q. Were you one of the first employed, or one of the last? A. As near as I can think, I went to work in August; some time in July or August.

Q. What did they pay you? A. $1 75 a day.

Q. What did you do? A. I loaded cars and carts with rock and dirt.

Q. Where did you board? A. At the corner of Green and Battery.

Q. The same place that Mr. Ryan boarded? A. Yes, sir.

Q. Were you ordered to board there, or went there of your own accord? A. I boarded there before I went to work.

Q. Did Mr. Gercke procure work for you? A. No, sir.

Q. Did you ask Mr. English yourself? A. No, sir; I asked one of the foremen.

Q. Did he stay at the same house you did? A. Yes, sir; he was there once in awhile; I think he lived out in the Western Addition.

Q. Was there a foreman over the men employed in filling carts? A. There were several foremen there; every foreman had a gang of his own. I worked for a Mr. Titus.

Q. In filling your carts, were you at any time in danger from caving of the banks, or anything of that kind? A. Yes, sir; there is always more or less danger in working at a quarry. There was danger sometimes of rock falling.

Q. Do you know of any accidents that occurred at the time you were there? A. Yes, sir; there was somebody hurt nearly every day.

Q. Any that you know of that were disabled from working? A. Not that I know of at the time I worked.

Q. Just merely received some little accident? A. A little hurt, that did not amount to much.

Q. Did any of them receive accidents serious enough, while you were there, to have to quit work for a day? A. Yes, sir.

Q. For any longer time? A. Well, yes.

Q. Were they taken back to work when they got better? A. Yes, sir; some came back to work.

Q. Have you any idea what was the cause of the accidents, such as you know of yourself? A. Well; some rock, or something of the kind, falling, that a man was in danger of most of the time.

Q. It was the caving down of the bank? A. Yes, sir.

Q. Did you make any arrangements with the parties when they hired you with regard to how you would draw your pay, whether you were to draw it yourself and pay the boarding house keeper, or not? A. No, sir; I made no agreement about that.

Q. Did you draw your own money, or did the boarding house keeper? A. I believe he drew the first month; the whole of it.

Q. That is, Mr. Gercke did? A. Yes, sir.

Q. Did he pay you any of it? A. He paid me what was coming to me, and took his board out of it.

Q. If you had gone in debt to him for any drinks or tobacco, or anything of that kind, would he take that out? A. I do not know about that; I was not in debt to him while I was working.

Q. You just merely allowed him to draw for your board? A. That is all.

Q. Was any contract made with you as to the number of hours you were to work? A. No, sir.

Q. Did the contractor, or rather, the foreman, Mr. Titus, ever hint to you that he ought to get anything for getting you employment? A. No, sir; I think he was a very decent man; I never heard him complained of.

Q. The contractors stated here they knew or had heard of some cases, but would not tell us who they were? A. I would almost swear it was not Titus, for he was a very decent man; I am well aware it was not him, if it was any one.

Q. Do you know anything about the organization of the Seawall Brigade? A. Yes, sir; I was there the night they organized.

Q. Were you one of the members? A. Yes, sir.

Q. Was any inducement offered to any of the men to your knowledge? A. Not that I know of.

Q. You were merely asked to join a political club? A. Yes, sir.

Mr. Roney: Do you know that this investigation is intended for the purpose of securing legislation to benefit men engaged in work as you have been? A. I heard so.

Q. That is the object of it. Now, you are aware that there were some accidents at that place? A. Yes, sir.

Q. Were any of these accidents very serious? I am not speaking of the gang you were working in; but was there any person seriously hurt during your employment there? A. Well, yes, sir; there were one or two.

Q. Was there anybody killed? A. Not that I know.

Q. Did you hear of anybody being killed there? A. I heard one day there was a man killed, but I heard the next day he was not.

Q. When anybody was hurt, do you know if any provisions were made for his care? A. Yes, sir; as soon as a man was hurt a doctor was sent for, and if badly hurt he was sent to the hospital.

Q. And that is all? A. That is all I know.

Q. Were there any men maimed so that they could not return to work there? A. I believe there were.

Q. Do you know what became of them? A. No.

Q. Did you ever hear whether the contractors had provided for them in any way? A. I do not know anything about that; I did not hear.

Q. Did you think $1 75 a day, for ten hours' work, good pay? A. I did not think it good pay; I never worked for so low, but I could not help it; I wanted work, and was glad to get it.

Q. Do you know the reason why the contractors only offered $1 75 to men there? A. I do not.

Q. Was it in consequence of a surplus of workmen? A. I am rather of the opinion it was, for there were a good many men that could not get work there.

Q. Do you think that if the number of hours had been reduced there would not have been more men employed there? A. Sometimes I believe they could not work any more men there, but I believe they worked every man they could.

Q. The job would have been protracted? A. I believe they could not work any more men than what they had, because they did not have room.

Q. Are you a miner by occupation? A. No, sir.

Q. You have no experience then in excavations of this kind? A. I have seen considerable of it done, but never did any there; I have done it in other places some.

Q. You have some experience then in that line of business? A. Very little.

Q. From your experience, do you think that every safeguard was taken to protect people from injury? A. From what I saw there, I believe there was. The foreman I worked for was very particular about watching to save any men from being hurt that he could.

Mr. Enos: You worked there about five months, did you? A. Well, about five months; I cannot say exactly.

Q. What time did you commence work? A. It was either July or August.

Q. You continued work up to what time? A. I continued till the rain come.

Q. You were paid $1 75 a day? A. Yes, sir.

Q. Right through? A. Yes, sir.

Q. Do you know of anybody whose wages commenced at your time that were lowered? A. A good many were lowered; I could not tell you how many, because there were men laid off work and came back again, and when they came back they worked for $1 50.

Q. Was anybody else lowered besides the men who went off? A. I believe several men were hired at $1 50 a day.

Q. When they first commenced work? A. That was in the fall.

Q. In the fall what men they hired they paid $1 50 a day? A. Yes, sir.

Q. And the men they did hire for $1 75, and went off and came back, got $1 50? A. Yes, sir.

Q. There was never any contract made with you as to how many hours you should work? A. No, sir.

Q. You worked ten hours for $1 75, and eight hours was a legal day's work; don't you think you ought to have pay for that quarter of a day's work which you did for five months extra? A. I suppose I would like to have it.

Q. Would you be willing to take any chance to get it? A. Perhaps I might; I don't know.

Q. Think the matter over; I make that suggestion to you.

Mr. Enos: This resolution calls for me to ascertain if there was any influence in any way in regard to politics; do you know of any? A. I do not know of any.

Q. Was anything said to you in relation to joining any political clubs? A. Nothing more than it was announced there was a meeting to be called to organize a club.

Q. Did you join, or do you know of anybody that joined the club that was induced by promises? A. Never heard of any promises whatsoever.

Q. Do you know anything about the truck system being in existence there; that is, the men not being paid coin for their work? A. No, sir.

Q. Do you know of any foreman or contractor receiving any pay from any of the men, or make any commissions out of their men? A. Not that I know.

Q. You never heard a word about it? A. No, sir.

Q. There was never any such proposition made to you? A. No, sir.

Q. How did the boarding house keeper come to take out your whole salary; with your knowledge? A. Yes, sir.

Q. Did you tell him to do it? A. Yes, sir.

Q. When he paid you that month did he take out anything except for your meals and lodging? A. No, sir.

Q. Did he ever charge you for cigars or drinks? A. No, sir.

Q. Does the man who keeps the boarding house also keep the bar? A. He does, sir.

Q. Whenever anybody that boards there gets drinks or cigars they pay for them independently, they do not wait until their month is up? A. Some do; but I always paid for a drink and cigar when I got it.

Q. I want to know if it is not customary for a man to do so? A. Yes, sir.

Q. They marked it down? A. Yes, sir.

Q. And when the end of the month comes they bring in the bill for all this? A. It has not been done with me.

Q. Do you know that to be the fact? A. I cannot know as long as I do not.

Q. There were 40 or 50 men boarding there? A. Yes, sir.

Q. Some waited until the end of the month before paying when they got a drink or cigar? A. I suppose so.

Q. Is it not a fact? A. Very likely.

Q. Is it not true? A. I suppose it is true; it must be true.

Q. And then when the month was up they figured up how many drinks and cigars each one had, and took that out with the board bill, and paid the men the balance? A. Very likely; the same thing is done.

Q. Do you know how many worked there; how many in all worked on the seawall while you were there? A. I never could know that.

Q. You can form a rough estimate. Did two or three hundred work there? A. I do not know. About one hundred and fifty, I think, was the most of what worked around the quarry, I think, to the best of my opinion.

Q. How many of those men out of one hundred and fifty worked for $1 50 a day, should you think—what proportion? A. Well, now, I cannot tell.

Q. Can you give any estimate at all? A. I do not know anything about it.

Q. You are a single man, are you? A. Yes, sir.

Q. How long have you worked in this city? A. I have worked off and on in the city since 1870.

Q. You have made your home in this city? A. I have gone out in the country a part of the time.

Q. Do you think $1 50 a day for a man and his family, or $1 75, was a fair day's pay? A. I do not think it is.

Q. Did you ever work for the State a day before for that? A. No, sir.

Q. Is this your first time? A. This is the first time.

Q. Have you ever worked for the State before? A. No.

Q. Is it the usual price for a day's labor and board yourself? A. $2 was the lowest. I usually worked by the month.

Q. On farms? A. Yes, sir.

Q. You never worked before when you worked by the day except you received $2 a day? A. That is the lowest I ever received since coming into this State.

Mr. Roney: How many men lived in Mr. Gercke's house who worked there? A. That I could not tell you.

Q. Do you know how many roomers he had? A. I do not.

Q. Or about how many? A. Well, I suppose thirty. That is about as many as he could accommodate, I think. I think he could not get much more there.

Q. In addition to the boarders? A. A great many boarded there who did not room there.

Q. Was there not a great many men there who boarded and roomed there who were not working continuously there? A. Yes, sir.

Q. Was Mr. Gercke not in the habit of getting these men jobs occasionally? A. I do not know anything about it.

Q. Was it not supposed to be through the influence of Mr. Gercke with the foremen that some of these men were employed. A. I do not know anything about that.

Q. Don't you think that if Mr. Gercke went to Mr. Gray, or Mr. Titus, that he could get a man a job? A. I should think he might. He is acquainted with them. More likely he could succeed than any other one.

Q. Don't you think he could get a man a job a little sooner than Mr. Enos could? A. Might be. I could not say anything about it.

At this point an adjournment was taken.

Manuel Joseph.

Called.

Question—What is your name and where do you reside? Answer—Manuel Joseph. I reside at 1012 Battery Street.

Q. Do you know M. J. Mertens, one of the contractors of section six of the seawall? A. Yes, sir; he is my boss.

Q. Did he ever have any conversation with you in relation to the construction of section six of the seawall? A. He told me to do the work. I was foreman for awhile.

Q. How were you hired, by the day, or hour? A. I was hired by the hour, at 30 cents per hour.

Q. Did Mr. Mertens ever have any conversation with you in relation to having men board at any hotel? A. Yes sir. He came to me one day, and told me to send whatever men I employed to Kerwin.

Q. Did he say you must do so? A. No, sir; he did not say I must.

Q. Did he say they must board at Kerwin's, or quit work? A. No, sir; he simply said to have them board there.

Q. Did you discharge any men for refusal to board at Kerwin's? A. Yes, sir; I did.

Q. Did you discharge them from orders from Mertens? A. No, sir; I did not. I told them if they could not board at Kerwin's, they must be discharged.

BRIDGET F. HOUSTON.

Called.

MR. ENOS: What is your name, and where do you reside? Answer—Bridget F. Houston; am at present living at 230 Green Street, in the City and County of San Francisco.

Q. Did you have any property in the neighborhood of Telegraph Hill? A. Yes, sir; I owned some property 22½ feet front by 90 feet deep, with a three-story house, at No. 4 Calhoun Street, in which I resided for 20 years and 6 months; it was my home; am a widow with five children.

Q. How much did you value your property at? A. It was worth about $4,000.

Q. Has your property, or any part of it, been injured? A. Yes, sir; it has all been injured, and in order to save my house I had it removed from the lot. The lot has all caved in and been destroyed.

Q. What was the cause? A. The injury has been done in the building of section five of the seawall; my lot is entirely worthless on said account.

ELIZABETH OVERON.

Called.

Question—Please give your name and place of residence? Answer—Elizabeth Overon; No. 10 Calhoun Street.

Q. Did you own property and what did it consist of? A. Yes, sir; the size of lot was 23 feet front by 91 feet deep. I had a dwelling house of six rooms, garden, outhouses, etc.

Q. What was the value of said property? A. I valued it at $3,000; it was my homestead.

Q. How long did you live there? A. I lived there 31 years, until driven out by the blasting and destroying of property.

Q. In what manner did the blasting affect your property? A. It shook the hill and cracked it, and the chimney in my house cracked, and the front part of the house commenced to sink; the stone foundation and ground has sunk 15 feet in the front part of the house, and the back surface is entirely gone.

Q. Was any compromise offered for said damage? A. No, sir; they never paid for it, or offered to do so; all is damaged to the amount of $3,000.

SAN FRANCISCO, August 25, 1885.

Investigation in regard to the construction of section six of the seawall, under and by virtue of a resolution passed by the State Senate March 3, 1885.

GEORGE GRAY.

Called.

MR. ENOS: Where do you live? Answer—In Oakland, California.

Q. What is your business? A. Superintendent of section six of the seawall—head foreman.

Q. What are your duties? A. My duties are to supervise the work; putting in the sand, seeing that the rock is placed properly, and everything of that kind.

Q. What is the length of section six? A. 800 feet; I am not positive—either 800 or 500.

Q. Who has the contract? A. The San Francisco Bridge Company.

Q. Who compose that firm? A. McMullen & Mertens, as far as I know.

Q. How many men have you employed on that seawall? A. About 55.

Q. Does that include all the men under your charge? A. Yes, sir.

Q. What are they paid per day? A. Different wages; some are paid $4, some $3, and some $2 50; and some men are receiving $1 75—all wages.

Q. Are the men hired by the day? A. No, sir.

Q. How are they hired? A. By the hour.

Q. What are they paid per hour? A. 17½ cents per hour.

Q. What class are paid that? A. Common laboring men shoveling sand and keeping the track in repair.

Q. How many hours are they worked? A. If they work ten hours they receive $1 75, and if they work less they receive less.

Q. They are paid in proportion to the number of hours? A. Yes, sir.

Q. Is there any stated number of hours they are considered to work? A. They generally work ten hours—sometimes more.

Q. What class of men do you pay $4? A. Engineers.

Q. What class do you pay $3? A. Blacksmiths and carpenters.

Q. Then all the men except what you may call skilled mechanics, such as blacksmiths and carpenters, and engineers, get 17½ cents an hour? A. Yes, sir.

Q. Do you know anything in regard to any truck system in connection with the construction of section six of the seawall—that is, the men being compelled to trade out a certain amount of their wages at certain places? A. No, sir; I do not.

Q. Is there anything of that kind going on that you know of? A. Not that I am aware of.

Q. Then you testify that the men are not hired by the day at the rate of eight hours a day? A. No, sir. They are hired by the hour.

Q. Who does that hiring? A. I do.

Q. Under authority of the contractors? A. Yes, sir.

Q. Do you know anything in relation to any of the persons employed on the seawall being interfered with in their political or elective franchise? A. No, sir; they never have been.

Q. Do you know anything in relation to any one connected there, as either contractor or sub-contractor, or persons employed as Superintendents, occupying the position you do, intimidating their employés in any way? A. No, sir, I do not.

Q. Or compelling them to patronize boarding houses in which said contractors are interested? A. No, sir; if a man is broke, we go security for his board.

Q. Do you know of anybody being compelled to patronize certain boarding houses in which said contractors are interested? A. No, sir.

Q. Do you know of any boarding house in which the contractors are interested? A. No, sir; they go security at one house for the men's board.

Q. Do you know of any one being compelled to patronize any particular boarding house in which the contractors are interested? A. No, sir.

Q. Do you have any difficulty in obtaining laborers at 17½ cents an hour? No, sir; there are thousands of them there every day.

Q. What is the condition of laborers as employed there, in respect to their receiving their pay, and the amount of pay they receive, as to whether you consider it living pay? A. I believe it is the best that is going in San Francisco, from what I can understand. Other contractors do not pay those wages.

Q. What is their sanitary condition? A. We generally have healthy men.

Q. Do you consider that the wages paid there are living wages for a man? A. As good wages as are going in the country.

Q. Do you consider it fair wages; enough wages? A. Fair wages at the present time. As times are, it is fair wages.

Q. You testify there has been no intimidation, as far as your knowledge is concerned? A. No, sir.

Q. No one has been compelled to patronize a particular boarding house, in which the contractors are interested? A. No, sir.

Q. Do you know the amount which the contractors are receiving for the construction of section six of the seawall? A. I do not remember, at present.

Q. Do you know why the men are not worked eight hours a day? A. Well, in the first place, they have not got time to complete their contract in working eight hours a day. The men are willing to work ten hours a day. They have a right to work ten hours a day; and if they wish to, there is no law that would compel them to work eight hours.

Q. Did you ever see the specifications on which this contract was let by the Harbor Commissioners? A. No, sir.

Q. Do you know whether that calls for eight hours a day? A. I do not.

M. J. Mertens.

Called.

Mr. Enos: Where do you reside? Answer—Alameda.

Q. Are you connected with the construction of section six of the seawall? A. Yes, sir.

Q. In what way? A. I am one of the company who has the contract.

Q. Who comprise that company? A. James McMullen, Thos. Carter, John Ballard, Percy Wright, and myself.

Q. You took that contract from the Harbor Commissioners? A. We did.

Q. Have you the contract and specifications here? A. I have not.

Q. You were the lowest bidder? A. We were the lowest bidder.

Q. Can you state whether the specifications contained the two clauses—the eight-hour clause and the Mongolian clause? A. It did. I know the contents of the specifications and contract.

Q. These two specifications were in the contract according to the law, to work the men eight hours a day, and no Mongolians should be employed, were they? A. I do not understand so as to the first clause.

Q. You say you understand the contents of the contract. Do you say that the clause in regard to working the men eight hours a day was not in the specifications? A. For a general understanding I recite from the clause in the specifications relating to the eight-hour law, in the Political Code of California, that eight hours constituted a day's work. That is all it says. It does not say we can only work eight hours, nor does it say that unless we do our contract would be void or forfeited. In other words, it is not binding on the contractor to work his men eight hours a day.

Q. Where did you get that information? A. That is my personal understanding.

Q. Where did you receive that information, from the Commissioners? A. No, sir.

Q. Who from? A. I say it is my personal understanding of it.

Q. Did you have any conversation or talk with the contracting parties when you got this contract? A. With the Harbor Commissioners? No, sir.

Q. Nothing said about it one way or the other? A. Nothing whatsoever.

Q. You do not work your men in accordance with the eight-hour law? A. We work our men by the hour.

Q. You do not pay any attention to the eight-hour law? A. I do not, for the simple reason that I consider it inoperative and not binding on the contractor.

Q. Have you ever been requested by the State authorities, the Harbor Commissioners, or anybody representing them, to work your men eight hours a day? A. Never.

Q. And the reason that you do not obey the law is, you think it is inoperative? A. In the first place, I do not consider the law made for us; that is to say, for us contractors. In the second place, I consider the whole law inoperative; that is to say, a dead letter.

Q. You say you understand the specifications; you read the specifications before you made your bid? A. We did; yes, sir.

Q. If the specifications contained the clause that you were to employ no Mongolians, you consider that operative? A. Yes, sir.

Q. If the specifications contained the clause that you were to work the men eight hours a day, you did not consider that operative? A. If you will allow me to correct you, the specification did not contain the clause that the contractors are to work their men only eight hours; it is a clause which, if you will read, you will see is in no way binding on the contractor.

Q. Section six does contain that provision, the specification under which you made your bid. Section five did not until after this investigation. Section five did not contain that provision, but section six, I am told, does contain that provision. If it is in your specification you, of course, do not consider it operative at all? A. I have to go back to what I said before; the clause relating to the eight-hour law is so waived in its meaning, in this specification, that it does not express or mean anything.

Q. The law says that all contracts for work done by the State shall contain that provision, and the specifications for section six of the seawall, under which you bid, contains that provision; you do not consider it operative, and therefore do not work your men under it? A. If the specifications would contain the clause, or condition, that whoever takes this contract is to work their men only eight hours, we would, and we would have to, most naturally, fulfill that condition; but it does not. It does not impose anything of the kind on the contractors.

Q. How do you know? A. Because I have read the specifications.

Q. If the specifications include the clause, the same as the Mongolian clause, would you consider yourself bound by that specification? A. If it did contain it, yes, sir. The difference between the two clauses, if you will allow me to explain, is this: That the first clause, relating to the eight-hour law, is so ambiguous that it leaves it entirely to the contractor whether he purposes or wishes to work his men eight hours a day or not; but the second clause, relating to the Mongolian laborers, says: "No Chinese or Mongolian labor shall be employed on this contract under forfeiture of the contract." That is the difference between the two clauses.

Q. Are there any Chinamen employed on the work, or in any way connected with the work? A. No, sir.

Q. How many men have you employed in the construction of section six of the seawall? A. Approximately, about seventy.

Q. What wages do you pay them? A. We pay them 17½ cents an hour, all laboring men.

Q. Was anything understood in relation to employing them by the hour to avoid the eight-hour law? A. No, sir.

Q. How many hours a day do you work your men? A. Ten hours.

Q. This work is done by the State? A. It is let by the State.

Q. Is it done for the State? A. It is done for the State if you consider the State Board of Harbor Commissioners the State.

Q. Is it done for the benefit of the State, who pays for it? A. Yes, sir.

Q. Who pays for it? A. The State Board of Harbor Commissioners.

Q. Where do they get the money? A. From the tolls.

Q. Is it State money? A. Yes, sir.

Q. Is it not public work done by the State, paid for by the State, and belonging to the State? A. My views are, the State of course lets the contract, but the contractors are not the State.

Q. I am not talking about you; I am asking you is this work public work for the State? A. I consider it so; yes, sir.

Q. It belongs to the State? A. It is done for the State.

Q. It belongs to the State after it is done? A. Yes, sir; it is State property.

Q. And paid by the State? A. Yes, sir.

Q. Do you know of any intimidation of the employés for political purposes? A. No, sir; we do not mix in politics.

Q. Do you know of anybody that is connected as contractor with any of the boarding houses in which they intimidate or compel the men to board? A. I do not.

Q. Do you know of any one connected with the construction of section six of the seawall being compelled to trade out a certain amount of his wages, a system known as the truck system? A. No, sir.

Q. You pay your men money? A. We do.

Q. What is your custom in relation to paying them? A. We pay them monthly.

Q. You give them the money for their wages? A. Yes, sir.

Mr. Enos: If any one present wishes to ask the witness any questions, he is at liberty to do so.

A Boarding House Keeper: You testified just now you had no Chinamen on the work. Have you not Chinese cooks? A. No, sir.

Q. Do the men get the full amount of pay? A. Yes, sir.

Mr. Enos: If you do not pay the men directly all their wages, you settle with the men where they owe for their board, at their request, and with the knowledge and consent of all parties? A. Most assuredly.

Q. Is it perfectly satisfactory? A. Perfectly.

Q. Where did you get the material to build this seawall? A. Part from Sheep Island, Bay of San Francisco.

Q. Where did you get the balance? A. We got it from the sand dunes west of Van Ness Avenue.

Q. You are not blasting, or interfering with private property? A. We are not.

Leo Gruen.

Called.

Mr. Enos: What is your age? Answer—Twenty-seven.

Q. Where do you live? A. San Francisco.

Q. How long have you lived here? A. Three years.

Q. You are a native of what country? A. Germany.

Q. How long have you been in the United States? A. Five years.

Q. What is your business? A. Laboring man.

Q. Do you work on section six of the seawall? A. Yes, sir.

Q. How long have you worked there? A. Three weeks, off and on. I work when it is low tide, leveling off the rocks; when it is high tide I cannot work.

Q. How much of the time have you worked—half the time? A. Hardly enough to make my board.

Q. Are you at work there now? A. Yes, sir; I am working for the contractor.

Q. Who is he? A. Mr. Joseph.

Q. On section six of the seawall? A. Yes, sir.

Q. What wages do you get? A. Twenty cents per hour.

Q. How many hours do you generally work? A. Some days four hours and some five hours.

Q. You work according to the tide? A. Yes, sir.

Q. When the tide is out you work, and when it is in you cannot work; that is the branch of your business? A. Yes, sir.

Q. Do you know anything about any charges being made here against the construction of section six of the seawall, such as intimidating anybody? A. Mr. Joseph, the foreman, told me, "By order of Mr. Mertens, you will either have to board in Kerwin's house, or consider yourself discharged."

Q. Who is this Joseph? A. He was foreman for Mr. Mertens, for the bridge company.

Q. Did Mr. Mertens, or any of these contractors, ever tell you anything about it? A. No, sir.

Q. Do you know whether they know anything about what Mr. Joseph told you? A. I do not know.

Q. Have you been discharged? A. Yes, sir.

Q. When were you discharged? A. A couple of weeks ago.

Q. Who discharged you? A. The foreman.

Q. Mr. Joseph? A. Yes, sir.

Q. Why did he discharge you? A. By order of Mr. Mertens, he said. I am working for the same man now.

Q. You say you work for Joseph now? A. Yes, sir.

Q. Who is Mr. Joseph working for? A. The bridge company, before, when he was foreman. He has a contract now.

Q. Who is the bridge company? A. McMullen and Mertens.

Q. Did you go to Kerwin's house? A. No, sir.

Q. Never been there? A. No, sir.

Q. You worked there three weeks, did you? A. Yes, sir.

Q. And you would not go to Kerwin's house at all? A. No, sir.

Q. Were you discharged because you would not board at Kerwin's house? A. Yes, sir.

Q. And then Mr. Joseph got a job from the same man and hired you? A. Yes, sir.

Q. You are still working for him? A. Yes, sir.

Q. Is this all you know about it? A. Yes, sir. Since I done my work I asked Mr. Gray for a job three or four times, and he says, "I am full, at present," and he hired the same day three or four men from Kerwin's house. We done the hardest work, working in the water, and we could not get a job because we were not stopping at the house.

Q. Did Gray say he would not employ you because you would not board at Kerwin's? A. No.

Q. Who paid you, when you were at work, 20 cents an hour? A. I got paid from Mr. Mertens' office.

Q. Who paid you? A. The bridge company—a clerk.

Q. Where do you board? A. At Mr. Kneese's.

Q. He keeps a boarding house? A. Yes, sir.

Q. In the same neighborhood? A. Yes, sir.

A Boarding House Keeper [to Mr. Mertens]: Did you not tell Mr. Joseph not to employ any one unless hired from Kerwin's house?

Mr. Mertens: I did not.

Mr. Enos: When you get this material you do not interfere with private property? A. No, sir.

A Laborer: I want to ask Mr. Mertens a question: If he is not getting some of the material from Telegraph Hill through a sub-contractor?

Mr. Mertens: We are. We have let a sub-contract to a party, about three weeks ago, to top out our wall. It was not specified that he was to take it from Telegraph Hill, but he thinks it most convenient to take it from there. Now as to the injury of private property, I wish to state that that contractor takes it from Sansome Street; and we have obtained permission from the Board of Supervisors of San Francisco to grade Sansome Street, and remove the rock there.

Mr. Enos: Do you know of any rock being taken from any of those streets that has injured private property?

Mr. Mertens: I do not.

Q. To what extent has any rock been taken from there by this sub-contractor?

Mr. Mertens: To the extent of three thousand tons. The contract requires about fifty to sixty thousand tons.

Q. You have no personal knowledge of any property being injured, so far? A. None whatever.

A Laborer: I want to ask Mr. Mertens if I did not go and ask him for a job, and he told me to go to Gray; that Gray had all to do with the hiring of the men?

Mr. Mertens: I do not know this man from Adam. If this man asked me for work I undoubtedly sent him to Gray, who has the power of hiring the men.

Mr. Enos: Gray is your superintendent?

Mr. Mertens: Yes, sir; for the seawall.

A Laborer [to Mr. Gray]: I want to ask if I did not go to you, and you told me that Mr. Kerwin had all to do with the men working there?

Mr. Gray: You never asked me that question.

A Laborer [to Mr. Gray]: I want to ask Mr. Gray if he did not tell me that he did not want any more men, but in a few minutes afterwards if he did not put some of Kerwin's men there?

Mr. Gray: I know the man; he worked for me before. I told him I was full-handed. I did not want the man, and that is the reason I refused. Kerwin was a friend of mine, and he had three or four friends that he wanted a job for, and I put them to work.

Mr. Enos: Were you induced to refuse his application simply because you were a particular friend of Mr. Kerwin? A. No, sir; because I did not want the man.

Q. I understand you, Mr. Gray, to testify that in employing the men you have acted purely and simply for the interest of your contractors, and have not been governed by any undue influence or pecuniary inducements? A. None, sir; none whatever.

A Laborer: Mr. Gray states that he works the men ten hours; I want to know if it is not nearer eleven hours than ten hours? A. I work them with regard to the circumstances; sometimes twelve hours. When I work them twelve hours, I pay them for twelve hours' work.

Mr. Enos: When you work a man twelve hours you give him 17½ cents an hour every hour he works? A. Yes, sir.

Q. If you work a man nine hours you pay him for nine hours' work? A. Yes, sir.

Q. The pay is in proportion to the number of hours? A. Yes, sir.

Mr. Enos [to Mr. Mertens]: Is that the condition under which your men are paid? A. Yes, sir.

John T. Sullivan.

Called and sworn.

Mr. Enos: What do you know about section six of the seawall? Answer—I will say that while I was a member of the Board of Supervisors the property owners petitioned to open Sansome Street from Union to Filbert, and I staved it off for considerable time, to have the property owners satisfied. Mr. Wagoner, the Engineer, I believe, brought a survey, or diagram of the ground, that would be cut down, and said that it would not injure any private property, and any property that was injured they were satisfied to pay for it. On those conditions I consented to it, after probably delaying the work several weeks. They worked there, but delayed the passage of the resolution, and when they got permission to open Sansome Street from Union to Green I was off East. When they petitioned for the opening of Green Street from Union to Montgomery Streets, I opposed it and it was defeated, and about the last of October Mr. Barry, one of the foremen for the contractors, came to me with some other gentlemen, and stated that if I did not consent to it they would use all their influence to have me defeated at the coming election; and I told them that I could stand defeat as good as any other candidate, and I would not consent to it; and they told me in case I changed my mind before Monday morning to go to Hackett's office and they would support me. Previous to that, Mr. Barry and Mr. Mc-

Devitt and Mr. Farren, who was a clerk in one of the Police Courts, came one day and they asked me if I would not be silent when the matter came up. To get rid of them I said I would; but when the matter came up I opposed it.

Q. Are you speaking of section six? A. I do not know anything about the section.

Q. It was the section for which Messrs. English, Hackett, Schuyler, and Wagner had the contract? A. Yes, sir; and they did destroy private property there.

Q. Who is Mr. Barry? A. One of the foremen.

Q. Under Mr. Hackett and Mr. English? A. I presume so.

Q. And they approached you for the purpose of getting you to aid them in passing that measure through the Board of Supervisors to grade certain streets? A. They promised their influence if I would help them.

Q. Do you know whether they did oppose you? A. I suppose so; I have no personal proof of it.

Q. That inducement was held out to you to control your action as a member of the Board of Supervisors for the grading of those streets? A. Yes, sir; and, furthermore, Mr. Hackett and Major Conlin, or some such name, came to my house on Montgomery Street, one day, and stated that they would pay for any property they injured, but would not consent to pay for the damages that were set upon the property by the parties owning them, but would submit to arbitration and pay what was fair and reasonable.

Q. Who came before your Board of Supervisors for the purpose of getting this through? A. Mr. Schuyler. I believe Mr. Wagoner, and Mr. English, and Mr. Hackett have been up there; those four men. I do not know whether Mr. Gray was up there or not.

Q. You are simply speaking of the property that was damaged, and the mode and manner in which they sought to get the Board of Supervisors to give them the right to blast through certain streets? A. Yes, sir.

JOHN D. YOUNG.

Called and sworn.

MR. ENOS: What is your name? Answer—John D. Young.

Q. Where do you live? A. Battery Street.

Q. What is your business? A. Mostly farm laborer.

Q. How long have you lived in San Francisco? A. Three months and a half.

Q. Are you working on section six of the seawall? A. Yes, sir.

Q. Who hired you? A. Mr. Joseph.

Q. What did you do? A. Level rocks.

Q. Where? A. On the wharf.

Q. Did you work by the hour? A. Yes, sir.

Q. What did you get per hour? A. Twenty cents an hour.

Q. How long have you worked there? A. Four or five days.

Q. I mean, how long have you worked there in all? A. In all, about three or four weeks.

Q. Do you know anybody being compelled to board at any particular place? A. I once got discharged because I did not want to board at a certain boarding house.

Q. Who discharged you? A. Mr. Joseph came one night to the place where I boarded, and said that if I did not want to board at Kerwin's he would discharge me. He had orders of Mr. Mertens to discharge anybody who did not.

Q. Joseph told you, if you did not board at Mr. Kerwin's, that he had orders from Mr. Mertens to discharge you? A. Yes, sir.

Q. What did you do? A. I did not want to go over there, so I got discharged.

Q. Who discharged you? A. Joseph.

Q. Have you talked with any of the contractors? A. No, sir.

Q. Are you working for Mr. Joseph now? A. Yes, sir.

Q. Who is he working for? A. Ship contractor.

Q. Did you ever board at Kerwin's? A. I never did.

Q. How long were you discharged? A. About a couple of weeks.

Q. Then Joseph set you to work again? A. Yes, sir.

Q. Do you know of anybody else that was discharged by Joseph? A. Yes, sir; this gentleman [pointing to a man present].

Q. Anybody else? A. No.

Q. You worked by the hour? A. Yes, sir.

Q. Who hired you? A. Joseph.

Q. And Joseph discharged you? A. Yes, sir.

Q. Joseph hired you over again? A. Yes, sir.

Q. And Joseph is working for the same men? A. Yes, sir.

Q. When he hired you to work, did Joseph tell you you must board at Kerwin's, or was it afterwards? A. He hired me first, but did not say anything about that; it came afterwards.

Q. How long afterwards? A. I only worked for about two days, I guess.

Q. All that you said about being discharged, and about boarding at Kerwin's, is what Mr. Joseph told you? A. Yes, sir.

Q. Do you know whether Mr. Mertens ever told Mr. Joseph anything about it? A. No, sir.

CHARLES WILSON.

Called and sworn.

MR. ENOS: What is your name? Answer—Charles Wilson.

Q. Where do you live? A. 1012 Battery.

Q. What is your business? A. Laborer.

Q. Do you know anything about building section six of the seawall? A. I have been working there since the tenth of June.

Q. Who hired you? A. Mr. Mertens; I was leveling rocks.

Q. You have been working there since? A. Yes, sir; off and on.

Q. You are still at work there? A. Yes, sir; working for a different man; the same company, but they let out the contract to another man.

Q. How long did you work on section six of the seawall? A. Two months.

Q. What did you receive a day? A. They paid me $1 75 a day.

Q. Did they hire you by the day or hour? A. Day.

Q. Who paid you? A. The company.

Q. Who hired you? A. First I worked for Mertens, and then I worked for Gray.

Q. It was all done through the bridge company? A. Yes, sir.

Q. Do you know of anybody's being intimidated? A. No, sir.

Q. Or compelled, as a condition to get work there, that they would trade out any part of their wages or board at any particular place? A. Yes, sir; Gray asked me where I boarded. I board at Battery Street. He says, "You must board over to Kerwin's." I did not like to go there. I am a married man; I have my family in Sacramento, and am going to bring them down here. Payday they wanted to get me to board at Kerwin's.

Q. Did you go there? A. No, sir; I quit the job.

Q. You were not discharged? A. No, sir; I was told to go there, and I did not want to go there.

Q. Did you quit because you were compelled to go there? A. Yes, sir.

Q. Is that the condition on which you quit? A. Yes, sir; every man working there—about 59 men; he asked every man to go to Kerwin's to board.

Q. Did he compel them to go there? A. He told them to go there.

Q. Were the men that were employed principally men with families or single men? A. Some single, and some were married.

Q. Did they all go there to board? A. Most of them; about three or four did not go there.

Q. Was you told to go there when you hired out? A. No, sir; they got up that racket after about three days.

James Kerwin.

Called.

Mr. Enos: What is your name? Answer—James Kerwin.

Q. Where do you live? A. Corner of Kearny and Bay.

Q. How long have you lived in this State? A. Twenty-three years and four months.

Q. What is your business? A. I keep a boarding house.

Q. Whereabouts? A. Corner of Kearny and Bay.

Q. Do you know anything about section six of the seawall? A. No, sir.

Q. Do not you know there is such a section being built? A. Yes, sir.

Q. Do you know the men who are building it? A. I know two of them, McMullen and Mertens.

Q. That is all you know? A. That is all.

Q. Did you ever have any arrangement, directly or indirectly, with any of the contractors upon the seawall, as a condition of employing men, that they should board at your boarding house? A. No, sir.

Q. Do many of the men that work on that seawall board at your house? A. Fifty or sixty.

Q. Has there been any inducements held out, by which you were to pay any commissions to anybody to induce them to board at your place? A. Not a dollar, never, to anybody. McMullen wanted me, six months ago, to go to the island and board fifty or sixty men for them.

Q. What island? A. Sheep Island. I says, "I am doing well enough here."

Q. Do you know of any political influence being exercised, or anything being brought to bear upon the men working on the seawall to interfere with their political freedom? A. No, sir.

Q. Do you know of a system known as the truck system, by which the men are compelled to pay or trade out a certain amount of their wages at any particular place? A. I know nothing about that, sir.

Q. Do you know anything about the wages paid to these men? A. I heard that they were paid 17½ cents an hour; that is what I heard. I could not state what it is.

A Laborer: Do you know of any men stopping in your house who did not get a job by asking Gray for it? A. That is more than I know.

A Laborer: Did you not tell the men to get their pick and shovel and go to work? A. Yes, sir.

A Laborer: That seems as if you were doing the work. A. I put fifteen men to-day in the same work—another contract, opposite my door.

Mr. Enos: If it is not interfering with your private business, I want to know what laboring men that are getting 17½ cents an hour pay for their board? A. $4 50 a week.

Q. Board and lodging? A. Yes, sir.

Manuel Joseph.

Called and sworn.

Mr. Enos: What is your name, and where do you reside? Answer—Manuel Joseph; I reside at 1012 Battery Street.

Q. Do you know M. J. Mertens, one of the contractors of section six of the seawall? A. Yes, sir; he is my boss.

Q. Did he ever have any conversation with you in relation to the construction of section six of the seawall? A. He told me to do the work; I was foreman for awhile.

Q. How were you hired, by the day or hour? A. I was hired by the hour, at 30 cents an hour.

Q. Did Mr. Mertens ever have any conversation with you in relation to having men board at any hotel? A. Yes, sir. He came to me one day and told me to send whatever men I employed to Kerwin's.

Q. Did he say you must do so? A. No, sir; he did not say I must.

Q. Did he say they must board at Kerwin's or quit work? A. No, sir; he simply said to have them board there.

Q. Did you discharge any men for refusal to board at Kerwin's? A. Yes, sir; I did.

Q. Did you discharge them from orders from Mertens? A. No, sir; I did not; I told them if they could not board at Kerwin's they must be discharged.

San Francisco, September 1, 1885.

M. J. Mertens.

Recalled and sworn.

Mr. Enos: Senator Days is the gentleman who introduced this resolution into the Senate, and at my request he comes here, as he is interested in this matter, and he desires to ask you some questions.

Mr. Days: One of the principal reasons for introducing that resolution into the Senate was to get at the reason why the eight-hour law was violated, or whether it was violated—whether it was a dead letter or not; and if so, why it is a dead letter. I would like to ask if you did not sign a contract, or rather your company, with the eight-hour law clause in it for the employment of men? Answer—We did.

Q. The eight-hour law was also in the specification, was it not? A. Yes, sir.

Q. How did you employ your men? A. We employed and paid our men by the hour.

Q. How many hours did they work a day? A. On an average ten hours a day.

Q. Did any one inform you or your company that by employing the men by the hour that would get around the law? A. No, sir.

Q. Your company has an attorney, has it not? A. Yes, sir.

Q. Did you ever discuss that matter with your attorney? A. Never.

Q. The question was never broached? A. No, sir.

Q. Was there any discussion of the matter with the Board of Harbor Commissioners? A. Never.

Q. If you simply took the contract for that, and if you employed the men by the hour, would that obviate the difficulty of the eight-hour law? A. No, I do not look at it in that way. It has always been our custom to employ all our men by the hour, laborers or mechanics; and we have also used that system on the seawall, but not with a view of evading any law. We did not consider, when you come right down to a consideration of the law that you now speak of, we did not consider it operative on our work.

Q. That is, on contract work? A. On contract work.

Q. You believe that, having a contract with the Harbor Commissioners to do work for the State, that it is not State work; that is the opinion you take about it? A. Yes, sir; that is the opinion we took.

Q. And, consequently, it not being State work, you can work your men any number of hours that you like; that is, that you agree upon? A. That we agree upon.

Q. You make a special agreement with them that they will have so much per hour? A. Yes, sir.

Q. You do not make any agreement as to the number of hours? A. No; but we employ men as many hours as will make a fair day's work and wages.

Q. That is, a regular day's work? A. An ordinary day's work.

Q. You say that you did not have any conference whatever with the Harbor Commissioners in relation to the eight-hour proposition? A. None whatever.

Mr. Enos: Mr. Mertens, you testified the other day that you were one of the contractors, one of four men that took this contract to build section six of the seawall? A. Yes, sir.

Q. You gave the names of the firm, did you? A. Yes, sir.

Q. Did you testify that if the specifications upon which you made your bid for the construction of section six of the seawall had contained a clause providing that the men should not be worked more than eight hours, you would consider yourself bound by it? A. I would.

Q. Did you also testify that you thought that your specifications upon which you made your bid did not contain such a provision? A. I say so.

Q. Now, I call your attention—I have examined the contracts and the specifications upon which section six of the seawall was advertised, and on which you made your bid, and it contains the following section: "In pursuance of Section 3245 of the Political Code, the contract will contain a stipulation that eight hours' work constitutes a day's work in all labor done thereunder." Now, the specification upon which you made your bid and the contract which was finally awarded by the Harbor Commissioners contains that clause? A. Yes, sir.

Q. You testified that if such a thing did exist, and you were aware of it, you would live up to it? A. I did.

Q. Now, it does contain such a clause, and why is it you do not live up to it? A. Because the clause that you now refer to does not bind under forfeiture of the contract to employ men only eight hours a day.

Q. Who says so? A. The very clause itself.

Q. I understood you, also, to testify the other day that the reason why you did not work your men under the eight-hour law was, that you had received instructions from the Harbor Commissioners, as well as from their attorney, that that clause of the Political Code was inoperative—null and void? A. You are entirely mistaken. I have not said so, to the best of my recollection.

Q. You now have no recollection of making such statement? A. I am positive of it. I never said that I conferred with the Harbor Commissioners or their attorney one single moment as to the force of that clause. I venture to say as my individual opinion that I consider that clause inoperative, and could not bind us as contractors for this work.

Q. You did not consider you were bound by it; that it is null and void? A. I did not consider that the law referred to applied to contractors, or to this particular case.

Q. Didn't you testify that this was work done for the State? A. I said that our contract is with the Board of State Harbor Commissioners. In other words, to be brief on this point, it is my individual opinion that this law refers to employés of the State.

Q. You are doing this work for the State? A. If you may call the Board of Harbor Commissioners the State, we do.

Q. Who pays you? A. The State Board of Harbor Commissioners.

Q. They deliver to you the money; they pay you? A. They do.

Q. Where do they get the money from? A. From the Harbor Improvement Fund.

Q. It is State money, and belongs to the State? A. It is money collected by the Wharfingers.

Q. I understand that. But this money, whose is it? It is not Mr. Irwin's, or Mr. Wise's, or Mr. Paulsell's? A. No, sir.

Q. It is State money? A. It is paid into the Improvement Fund.

Q. It is State money, and belongs to the State? A. I would not venture to say so—no.

Q. What is your idea of it; does that belong to the Commissioners, or does it belong to the State? A. The State has control of it.

Q. Don't you know that this is public money? A. It is public money.

Q. Do you not know that after the work is performed, completed, and finished, it belongs to the State as public property? A. It is under the control of the State Board of Harbor Commissioners.

Q. Is it not public property, belonging to the State? A. It may; yes, sir.

Q. I ask you, as a contracting party, and as a business man, whether you will not swear that it is public property and belongs to the State and nobody else? A. I cannot express myself any better than by saying that the State Board of Harbor Commissioners is one of the contracting parties and we are the other. Now, if you say the State Board of Harbor Commissioners is the State, we are doing the work for the State; they are the representatives of the State. Our contract does not read, nor is it in the name of the State of California; it is with the State Board of Harbor Commissioners. Now, why should we get the opinion from that that this work is done for the State. I say, no; the very evidence of the contract shows it. If we were building a State Capitol, possibly the contract would be with the State of California.

Q. The Legislature passed a law, appointing Commissioners to build the Capitol, and the Legislature appointed a Commission to build the State University at Berkeley. When they built the Capitol or the University at Berkeley, did the contractors build it simply for the Commissioners, or did they build it for the State and directly for the benefit of the State, and with the State moneys? You do certain work under a contract which is public work for the State, and you do it with men appointed by the State to see the work done. Now, does it make any difference whether you do it directly with the State or with the Commissioners?

Mr. Days: I think you said that the eight-hour law is inoperative, from the fact that there is no penal clause in it? A. Yes, sir; I stated somewhat to that effect.

Q. Now supposing that you and I had a transaction, and I loaned you say $200, for which I take your note to be paid at the end of three months, would you have to pay me or not? A. I would, unless you chose to extend the time.

Q. I will suppose now that I want my money immediately and you have the money and you do not want to pay me. I can collect that money by law. There is no clause in the agreement, is there, that I can collect it? A. No, but there is a provision in the Political Code that you can collect it.

Q. Yes, sir, there is a provision in the Code that all contracts must be lived up to, and if they are not lived up to then the Courts can interfere. Now the provision in the eight-hour law simply has no penal clause. Now what is the difference between the provision of the eight-hour law in your contract and the provision that would be in the note that I speak of that you would owe me? Neither of them have any penal clause. You would expect, in other words, that without a penal clause in the contract to pay me in three months time. You would expect to pay it? A. Yes, sir.

Q. Now what I want to get at is, what is the difference in the two contracts in that respect in your mind? A. In my mind the difference would be this, that for the nonpayment of the note there is a clause in the law which provides for its enforcement; that is to say, for the enforcement of the payment. In the eight-hour law, as I understand it, although I really never read it, but have seen it, there is to my knowledge no penal clause attached.

Mr. Enos: You refer to this contract. I have looked at the contract and the contract does not justify you in coming to any conclusion that this is private work because it is signed only by the Harbor Commissioners. "This agreement entered into the twentieth day of February between you and the State Board of Harbor Commissioners, and the Governor of the State of California, and the Mayor of the City and County of San Francisco, by authority given by the Legislature," they are made the contracting parties for the State? A. I never considered it not public work or private work, but I say it is work for the State Board of Harbor Commissioners.

Q. Is it any more work for the Harbor Commissioners than it is for Governor Stoneman and Mayor Bartlett? A. Well, I wish to call your attention to the fact that the Governor of the State and the Mayor of San Francisco are ex officio Harbor Commissioners.

Q. But they have got to be parties to the letting of the contract? You cannot let the contract without them? A. I say that they are spoken of there as Harbor Commissioners.

Q. The law is that they must sign, must be parties. What is that for if it is simply private work? A. I do not consider it as private work; it is public work.

Q. You say you have never read this law? A. No, sir.

Q. It reads: "Eight hours' labor constitutes a legal day's work in all cases where the same is performed under the authority of any law of this State." Don't you consider that this work is done under authority of the law of this State? A. Yes, sir.

Q. "Or under direction of, or control, or by authority of any officer of this State acting in his official capacity." Don't you think this work is done under that section; "or under direction, control, or by authority of any municipal corporation within the State, or by any officer thereof, acting as such, and a stipulation that that effect must be made a part of all contracts to which the State or any municipal corporation therein is a party." I call your attention to that. That was put in the stipulation on which you made your bid. You received the contract because you were the lowest bidder? A. Yes, sir.

Q. With that clause in the specification, and that clause made in the contract, now you say of your own volition, without consulting the State authorities, you have gone on hiring your men by the hour and working them ten hours a day; is not that it? A. Yes, sir.

Q. You did not hire your men according to the clause in the contract, which says that you shall not work them but eight hours a day? A. No, sir.

Q. You did not pay them for eight hours a day? A. No, sir.

Q. You hired them by the hour? A. We did.

Q. And paid them by the hour? A. Yes, sir.

Q. I asked you the other day if you employed any Mongolians on this labor of constructing section six of the seawall? A. No, sir; we do not.

Q. Have you employed any Chinese as cooks? A. We have employed Chinamen as cooks for our laborers on Sheep Island.

Q. You have employed Chinamen as cooks for your men whom you have employed in the construction of section six of the seawall? A. Yes, sir.

Q. How many? A. Two or three.

Q. When, and where? A. On Sheep Island.

Q. Is that where you get the material out for the construction? A. Part of the material; yes, sir.

Q. When did you commence the contract? A. The contract was entered into on the sixth day of January, 1885.

Q. Did you commence work then? A. We commenced work in February.

Q. What time in February? A. The beginning of February.

Q. Have you had Chinamen employed as cooks from the commencement of this contract up to the present time? A. No, sir.

Q. What portion of the time have you had Chinamen employed? A. We have employed from two to three Chinamen from the commencement of this work until about four weeks ago—at Sheep Island.

Q. As cooks? A. As cooks.

Q. Have you ever employed any as laborers in or about getting out that material, or anything of that kind? A. No, sir.

Q. Now are there any in your employ? A. No, sir.

Q. Up to what time did you keep those men as cooks? A. Approximately till about the end of July. Will you let me make just one correction in a statement I made to an interrogator? It was stated here that I was questioned at the last investigation as to whether we ever had any Chinamen in or about the work. I would say this question was never put to me, but the question put to me was: "Are you employing Chinamen in or about this work?"

Q. What is the amount of the contract to build section six of the seawall? A. Our bid is $122,000, in round figures.

Emanuel Joseph.

Called and sworn.

Mr. Enos: Where do you live? Answer—I live on Battery Street.

Q. In San Francisco? A. Yes, sir.

Q. What is your age? A. Twenty-nine.

Q. What is your business? A. Foreman.

Q. Foreman of what? A. Foreman for myself, at present.

Q. What are you doing? A. I have a sub-contract from the San Francisco Bridge Company.

Q. What doing? A. Laying down the facing on the seawall.

Q. On what work? A. Section six of the seawall.

Q. You have a sub-contract to do certain work on section six of the seawall, being constructed now by Mr. Mertens & Co.? A. Yes, sir.

Q. How long have you had that contract? A. I think I commenced last Saturday week.

Q. You testified the other day? A. Yes, sir.

Q. Were you ever foreman for this bridge company? A. Yes, sir.

Q. On section six of the seawall? A. Yes, sir.

Q. What were your duties as foreman? A. I worked for them on Second Street, filling up Second Street.

Q. Your duty as foreman was to hire and employ men, and oversee them? A. To oversee them, and employ and discharge them.

Q. Did Mr. Mertens, one of the contractors, ever tell you not to employ any men without they boarded at certain places? A. No, sir.

Q. Did you tell that man so [pointing to Leon Gruen]? A. I told him so.

Q. Did you tell him a lie? A. I did at the time. I did not want to hurt the man's feelings.

Q. What induced you to lie? A. I don't know.

Q. You went deliberately down and stated to this man, who was in your employ on section six of the seawall, that he had to board at a certain place; that Mr. Mertens, one of the contractors, told you that you must discharge him without he boarded at a certain place? A. I did not exactly say that Mr. Mertens told me. I said he had to go down there and board, or I would let him go. I did not bring Mr. Mertens' name in at all.

Q. You say that Mr. Mertens never gave you such instructions? A. He never gave me such instructions, as I said before; but whatever men I employed to send down to Mr. Kerwin's.

Q. What else did he say? A. That is all he said to me.

Q. You never were told by Mertens not to employ men without they would board there? A. No, sir.

Q. And Mertens never told you to discharge men without they boarded there? A. No, sir.

Q. You said you lied? A. I did not say that Mertens told me anything about it.

Q. I asked you the question directly? A. I discharged him. I told him I could not keep a man unless he boarded at Kerwin's. That is the words I told him.

Q. Now, what did Mr. Mertens tell you about the men boarding at Mr. Kerwin's? A. That is what he told me.

Q. What did he tell you? A. He told me whatever men I would hire, if I would hire any men, to send them down to Mr. Kerwin's.

Q. Did you discharge that man [Gruen]? A. I did.

Q. Why did you hire him over again? A. I thought he was big and strong, and could handle the rock better than any one else; I did not want too small a man.

Q. Why did you discharge him before? A. It is different work. A small man can do more work in different things than a man that has no experience on the work. He can't do it.

Q. Did you tell this man after you got your sub-contract that your men could board where they pleased? A. When I got the sub-contract I told them to board where they wished.

Q. You still retain your position under Mertens' company? A. Yes, sir.

Q. Now, sir, when you came into this office to make complaint against the bridge company—— A. [interrupting]—I did not make complaint against the bridge company.

Q. You came in with this man Gruen? A. Yes, sir.

Q. To make a complaint to me, as Commissioner, of the manner in which they were constructing section six of the seawall? A. I did not make any complaint against the company.

Q. What did you come into my office for? A. I came in with that man, as he can state now, about boarding all the men at one house. That I know nothing about, how it is done or how it is not done.

Q. Did not you give me a list of witnesses? A. I gave you no list of witnesses.

Q. Did not you ask me to commence this investigation in relation to section six of the seawall? A. In one matter—the boarding of all the men at one place.

Q. Are you not one of the men that instituted this inquiry? A. No; I don't see that I had anything to do with it.

Q. Did not you come into my office under an assumed name, and I was introduced to you as a man by the name of Howard? A. Yes, sir.

Q. Why did you do that? A. I don't know. I did not want to, but he asked me to come up here as a friend [meaning Gruen]. I did not want to let any one know that I was up here.

Q. Why did you wish to conceal your true name? A. I did not want to have it known that I was in any transaction at all; I was not against the bridge company; I was against boarding all the men at one house.

Q. Didn't you come in here to consult in relation to whether the Attorney-General's opinion would not give us authority to go on in relation to section six, to continue our investigation as to section six of the seawall? A. I spoke of finding out the reason why the men all boarded at one house.

Q. You have relinquished your interest to make an investigation in relation to this seawall matter? A. Not that I know of.

Q. Have you talked with the contracting parties since this investigation commenced? A. Not about the matter; I have spoken to them.

Q. Who did you get your contract of? A. I got it from Mr. Mertens.

Q. Directly? A. Yes, sir.

Q. When did you get that? A. About three weeks ago.

Q. Since this investigation started? A. No, sir; long before that; six days before that.

Q. You say that Mr. Mertens has not conversed with you in relation to your testimony about this investigation? A. No, sir.

Q. Never has spoken a word to you? A. No, sir.

Q. Has anybody else? A. No, sir.

Q. Have you talked with anybody else about this investigation? A. No, sir.

Q. Not a word? A. No, sir.

Q. You never told anybody that if you did not back out of this thing you would lose your position? A. I did not say, back out of it.

Q. That you would lose your position? A. Yes, sir; I was afraid I would lose my position coming up here.

Q. And is that the reason why you have backed out of this proceeding? A. No, sir; I have not backed out of it.

Q. The day after you had your last examination, did you have any conversation with this man [Gruen] about being discharged? A. I believe I told him the next day, or that morning, he would be discharged. I have been telling the boys all along in their work that they would have to be discharged.

Q. Did he tell you that he would be discharged? A. Yes, sir.

Q. Did you tell him, no, to go to work? A. I said to go to work.

Q. Did he go to work? A. He went to work.

Q. Did Mr. Mertens go down there that day, between five and six o'clock that afternoon? A. He was down there.

Q. Did he have a private conversation with you? A. He took me on one side as soon—as he always has done, to talk to me.

Q. Did you tell the boys about six o'clock, "Come, let's go home?" A. I did.

Q. Did you, after you got your supper, tell this man [Gruen] that "You are discharged; I do not want you any longer?" A. I told them they could not do my work, and I had discharged them.

Q. You told him in the morning to go to work? A. Yes, sir.

Q. And he worked all that day? A. Not a full day.

Q. Well, he worked? A. Certainly.

Q. Mr. Mertens came down? A. I saw him down there.

Q. He took you on one side? A. Yes, sir.

Q. And had a private talk with you? A. He always has when he wants to tell me anything on business.

Q. He did that day? A. Yes, sir.

Q. Did you tell the boys at six o'clock to go home? A. Yes, sir; to go to supper.

Q. After supper, did you tell these men not to work any more? A. They could not do my work, and I told them I had to discharge them.

Q. Between what hours of that memorable day did you discover they could not do your work? A. I found it out the day before and the day before that.

Q. If you found out he [Gruen] was not your man, why did you set him to work that morning? A. I always give a man a trial.

Q. Had you changed your work? A. It was not going fast enough.

Q. How many men did you discharge? A. Two.

Q. These two that are here, Gruen and DeYoung? A. I think so.

Q. Did you discharge these men because they could not do your work? A. Yes, sir.

Q. You had not changed your manner of doing work? A. I wanted my work done faster.

Q. How long had this young man been at work for you? A. I think about three weeks. The work he was doing is different work, and needs different ideas.

Q. They were sober men? A. Yes, sir. I never saw anything the matter with them.

Q. Good, quiet, peaceable young men? A. Yes, sir.

Q. Did you hire anybody in their places? A. I hired three men.

Q. Where did these men board when you discharged them? A. With George Kneese.

Q. Where did the men go to board whom you hired? A. I don't know; they were married men.

Q. Did you say to this man [Gruen]: "I am sorry, but I will have to discharge you; you are a handy man, and if I can do anything for you, as I have considerable influence, I will do it." A. I told him he was a good worker, but he was not able to do my work; that is what I stated; and anything else I could do for him anywhere else, I would do it, the same as I would do for any other man.

Q. Did you tell him that you had a family and two children, and your living depended upon it? A. I do not suppose I told him I had a family and two children, but they all knew it in the house, that I have.

Q. Did you tell this man [Gruen] that you knew more about the racket than anybody else, and you expected to lose your place, but you did not care anything about it; but you were coming up here to testify? A. No, sir.

Q. Did you ask this man to come up here and testify? A. No, sir.

Q. Did you give the names of these two men who were in here that day? A. No, sir.

Q. Did you give me names to subpœna and I subpœnaed them on the first examination of section six of the seawall? A. I came up, but I did not mention names.

Q. What did you do? A. I kind of forget now.

Q. What did you come up here for? A. I came up here with George.

Q. What did you come up for? A. I came up about the men all stopping at one house. I came up with him, George.

Q. Didn't you tell me that if I would go on with this investigation, and to issue certain subpœnas for the purpose of proving that it was a condition for men to work on the seawall that they must board at Mr. Kerwin's house, and didn't you give me a list of names in connection with this matter to prove that? A. I told you that all the men that were employed there were boarding at Kerwin's.

Q. Why don't you answer my question? Didn't you tell me that you came here for that purpose? A. I spoke of all the men boarding at one house; yes, sir.

Q. And that you would bring me more names? A. Yes, sir, in regard to their stopping at that house.

Q. What interest had you that the men should not board at one place? A. I had nothing against Kerwin.

Q. What interest had you, then, against their boarding at Kerwin's house? A. I had a reason in it; the men there were always drunk and one thing and another, and never saving a cent, and another thing, a man should go and board wherever he likes.

Q. That is what brought you up here? A. Yes, sir.

Q. You told me that was the reason why you came to my office, that no man could get work without agreeing to board at Kerwin's? A. Yes, sir, I believe that is it.

Q. Did you tell me the truth? A. Yes, sir; just as I am speaking now.

Q. Well, sir, will you testify now that no man can go to work on the seawall without he boards at Kerwin's house? A. I do not know about getting work.

Q. Didn't you tell me that? A. I believe I did.

Q. Will you swear to it now? A. No, sir.

Q. Why then did you make such a representation? A. Because I thought that was the reason.

Q. Do you think so now? A. I do not.

Q. You have changed your mind? A. I kind of changed my mind, but the men were all boarding there as I stated.

Q. Do you think now the men are not obliged to board there? A. I do, sir.

Q. That they are not obliged to board there? A. Yes, sir.

Q. And that they can board anywhere else? A. Yes, sir.

Q. You did not think so when you made the complaint? A. I did not.

Q. Why this radical change? A. There is no change at all.

Q. Did you see Mr. Galland when he came down to subpœna? A. I did not, sir.

Q. Did not you go in under the seawall? A. I did go under the seawall.

Q. Do you testify that you did not see Mr. Galland when he was trying to find you? A. I did not notice him; I went down there to measure off my wall.

Q. And didn't you tell this man Gruen, that if Mr. Galland did come around, to say you were gone into the country? A. Yes, sir, I did for a joke. They were talking and laughing in the house, and I said, "I will go in the country," just for a joke.

JOHN BURKE.

Called and sworn.

Mr. Enos: Where do you reside? Answer—550 Mission Street.

Q. What is your business? A. Laborer.

Q. Have you been employed on section six of the seawall? A. Yes, sir.

Q. Who employed you? A. Mr. Gray.

Q. As a laborer? A. Yes, sir.

Q. Mr. Gray is foreman, who employed the men in the construction of section six of the seawall? A. Yes, sir.

Q. What arrangement did you make with Mr. Gray to work on section six of the seawall? A. I worked ten hours a day for $1 75.

Q. He hired you by the day? A. Yes, sir; I understood it by the day.

Q. How long did you work for him? A. Three weeks.

Q. What was said to you about your going to work? A. When I was working there I was to go and board at Kerwin's.

Q. When you were hired what was said? A. Nothing was said.

Q. When you went to work where did you board? A. I boarded at home with my family.

Q. Are you a married man? A. Yes, sir.

Q. How long have you been working there? A. I was working three weeks when I was told to go and board at Kerwin's or quit.

Q. Who told you to go and board at Kerwin's? A. Mr. Gray. He asked me where I was boarding, and I told him with my family; and he said, "You must go and board at

Kerwin's or quit the job." I worked three days after that, and sooner than go and board at Kerwin's I quit.

Q. Did you ever have any talk with the contractors? A. No, sir.

Q. Is that all you know about it? A. Yes, sir.

Q. You were not present when Mr. Gray testified? A. No, sir.

Q. How were you paid? A. I got my time; it was cashed in the office. He said he would make an exception in my case and pay me off; generally they would not pay until the fifteenth of the month.

Mr. Days: Are you certain that Mr. Gray said nothing about being employed by the hour? A. I could not say anything about that.

Michael Delaney.

Called and sworn.

Mr. Enos: Where do you live? Answer—No. 28 Alta Street.

Q. What is your business? A. Laborer.

Q. Have you been employed on section six of the seawall as a laborer? A. Yes, sir.

Q. How long? A. Twenty-one and a half days.

Q. Who employed you? A. Mr. Gray; I would not get the job only through influence for me.

Q. What was the bargain that Mr. Gray made with you? A. To work ten hours a day for $1 75.

Q. Are you married? A. Married man.

Q. Where did you board? A. At home.

Q. Was there anything said about board? A. Gray went along the line and told all the hands that if they did not go to board at Kerwin's they could not work. One young man refused to go to board at Kerwin's, and he gave him his time right away.

Q. Do you know anything else? A. My health was not good, and that put me back for a few days, and when I got better I spoke to Mr. Gray, and I said, "I am all right; I am a man of family;" and he said, "I can't give you any work; I am full-handed;" but he said to another man, when I took my time, that I would never work a day for that firm again.

Joseph O'Malley.

Called and sworn.

Mr. Enos: Where do you reside? Answer—Sansome Street.

Q. What is your business? A. Laborer.

Q. Have you worked on section six of the seawall? A. Yes, sir.

Q. When did you work? A. From the first beginning of it up to last Friday afternoon.

Q. How long have you worked there? A. From the seventh of June until the twenty-eighth of August.

Q. Have you been discharged? A. Yes, sir.

Q. Who discharged you? A. Mr. Gray.

Q. Do you know why he discharged you? A. Yes, sir.

Q. Why? A. I neglected my duty.

Q. Then you were discharged for a good cause? A. In the first place, the way I got discharged, I went into the bay to save a man's horse. The man's horse was drowning; it got scared at the cars, and I was on the car with Mr. Gray. I got wet, so the man I saved the horse for took me into a place up on Battery Street, and we got a few drinks of whisky, and when I went to work the whisky affected me, and of course I did not do my work.

Q. Who hired you to work? A. Mr. Gray.

Q. What was the bargain? A. To work for $1 75 a day.

Q. He hired you by the day? A. Yes, sir.

Q. Anything said about the hours? A. No, sir.

Q. And you received from that time $1 75? A. Yes, sir.

Q. You were working ten hours a day? A. Yes, sir; we commenced to work at seven o'clock in the morning and worked until six at night.

Q. He told you what would be the time? A. Yes, sir.

Q. Do you work there now? A. No, sir; I was discharged on Saturday morning.

Q. Have you gone back to work? A. No, sir.

Q. Were you not working there yesterday? A. No, sir; I am working for another firm.

Q. You are working on section six of the seawall? A. Yes, sir; but for another man.

Q. A sub-contractor? A. Yes, sir; Mr. Cummings.

Q. Was anything said where you should board when he hired you? A. When I was first set to work, no; he never asked me where I was boarding.

Q. Anything said at any time about where you should board? A. He came along and told me, and all the rest of them, that we would have to go and board at Kerwin's, along with the rest of the men, and he said he had got orders to that effect.

Q. Mr. Gray said he had orders to that effect, that the men that worked there should do what? A. Board at Kerwin's.

Q. Did you go? A. No, sir.

Q. Did you work? A. Yes, sir; I did not have to go. I went and spoke to Mr. Mertens, and asked him if he would allow me to stay where I was. He told me if he would grant me that favor they would all be after him, so he said he would not have anything to do with it. He told me I must go and see Mr. Gray.

Q. How long ago that Mr. Gray told you that you must go to Kerwin's to board? A. On the fourteenth of June.

Q. And you did not go? A. No, sir.

Q. And you kept at work? A. Yes, sir.

Q. And have you been discharged? A. Yes, sir.

Q. And are now working for a sub-contractor? A. Yes, sir.

Q. Did you hear Gray, or any one in connection with the construction of the seawall, tell any of the men where to go to board? A. Yes, sir.

Q. What did you hear? A. Mr. Mertens told me himself. I told him a lie at that time. I told him I was living with my aunt; that I was boarding in my aunt's house.

Q. What did you tell him that lie for? A. I thought he might favor me, and let me stay where I was by saying that.

Q. Do I understand that Mr. Mertens came to you and told you that he would not grant any favors, and that you would have to board at a certain place? A. He told me that I would have to go and see Mr. Gray.

Q. And then you told him a lie, and said you were boarding with your aunt? A. Yes, sir.

Q. You thought that would mollify Mr. Gray's determination? A. Yes, sir.

Q. And finally he said he would not interfere with you? Did he specify any particular place where he wanted you to board? A. No; he did not.

Q. Did he say all the men that worked on that section, six, of the seawall would have to board at a certain place? A. Yes, sir.

Q. Mr. Mertens told you? A. Yes, sir; at that time.

Q. When was that? A. I could not exactly tell the date. It was some day after Mr. Gray told us; I believe it was on the twelfth or the fourteenth of June.

Q. The question is, did Mr. Mertens ever tell you? A. Yes, sir; I was the only man that spoke to Mr. Mertens.

Q. And Mr. Mertens told you that all the men that worked on section six of the seawall must board at a certain place? A. Yes, sir.

Q. Did he mention the place? A. Yes, sir.

Q. State what he said? A. I said that Mr. Gray told us we would have to go there on Monday morning, and I asked permission of Mr. Mertens.

Q. In the first place Mr. Gray told you that you would have to board at a certain place on Monday morning? A. Certainly.

Q. Where was that place? A. Mr. Kerwin's.

Q. And you went to see Mr. Mertens? A. Yes, sir.

Q. What did Mr. Mertens say? A. At first he said he did not want to talk with me, and to talk to Mr. Gray, and I went away, and I worked that day. I put up the tools, and Mr. Mertens was on the wharf that afternoon, and he came up to me and said: "Ain't you the man that spoke to me about this boarding?" And I said: "Yes, sir." "Well," he said, "what do you want?" "Well," I said, "I am boarding with my aunt and I would like to stay there; she is a poor woman;" and I said I didn't see why I should be compelled to go to another house, and rather than do that I would just as leave get my time." He said: "If I grant you this favor I would have to do it to all the rest." "Well," I said, "I don't want any favor; I would just as soon get my time, anyway."

Q. And he said that you go and see Mr. Gray? A. He told me to go and see Mr. Gray about it.

John D. Young.

Called and sworn.

Mr. Enos: Where do you live? Answer—In this city.

Q. How long have you lived here? A. Three or four months.

Q. A single man? A. Yes, sir.

Q. What is your age? A. Twenty-one.

Q. Did you work on section six of the seawall? A. Yes, sir.

Q. When? A. I was working there last week.

Q. When did you commence to work? A. I commenced to work about five or six weeks ago.

Q. How long did you work? A. I worked off and on about three weeks.

Q. Who did you make the contract with? A. I worked for Mr. Joseph.

Q. Who hired you to work there? A. Mr. Joseph.

Q. What were the conditions on which you went to work? A. 20 cents an hour.

Q. How many hours did you work a day? A. Sometimes five and sometimes more.

Q. What was the branch of business you were employed in? A. Leveling rocks at low tide.

Q. Was there anything said in relation to your boarding at any place? A. I got discharged on account I did not want to go to board at Kerwin's.

Q. Who discharged you? A. Mr. Joseph.

Q. What did he tell you? A. He said Mr. Mertens told him he had to discharge us unless we would board at Kerwin's.

Q. Did you refuse to board at Kerwin's? A. Yes, sir.

Q. And you were discharged on that account? A. Yes, sir.

Q. By Mr. Joseph? A. Yes, sir.

Q. And Mr. Joseph is a sub-contractor? A. Under Mr. Mertens.

Q. Any relation to the contracts? A. He was foreman at that time.

Q. I thought Mr. Gray was foreman? A. No, he was foreman leveling off the rock.

Q. Joseph was foreman of that branch of the work, leveling off the rocks? A. Yes, sir.

Q. At that time, he told you that if you did not board at Kerwin's you could not work there? A. Yes, sir.

Q. And you refused to board there? A. Yes, sir; and I got discharged.

Q. When were you discharged? A. Three or four weeks ago.

Q. Have you been to work there since? A. Yes, sir; when he got the sub-contract he hired me over again, and I got discharged just a week ago.

Q. How long did you work for him after he hired you on the sub-contract? A. I worked about four or five days.

Q. Under those last arrangements? A. Yes, sir.

Q. You were testifying here last week? A. Yes, sir. We went to work in the morning, and about one o'clock I came up here, and in the afternoon we went to work again until six in the afternoon. Mr. Mertens was around there and called Joe on one side, and after that we quit work and went to supper, and he told us we were discharged because we could not do his work.

Q. That was last week? A. Just a week ago on the twenty-fifth.

Leo Gruen.

Called and sworn.

Mr. Enos: What is your age? Answer—Twenty-seven.

Q. Single man? A. Yes, sir.

Q. Live in this city? A. Yes, sir.

Q. How long? A. About three years.

Q. Did you work on section six of the seawall? A. Yes, sir.

Q..As a day laborer? A. Yes, sir.

Q. Who hired you? A. Mr. Joseph.

Q. The first time? A. Yes, sir.

Q. I examined you the other day. Have you any additional testimony to offer before me? A. No, sir. That is all I know; I swear to everything I said.

Q. Were you discharged at that time? A. Yes, sir; just after that examination.

Q. After you came up here you were discharged? A. I worked until that night.

Q. Was anything said to you why you were discharged? A. I asked him in the afternoon before I went to work; when I came back, I said, "Joe, I don't think there is any need for me to go to work down there any more, you will let us out anyhow." I said, "I bet you anything you will let us out by night." He said, "You can go to work," and I said, "All right;" and I went to work, and about six o'clock, or a little after, Mr. Mertens came around, and I saw him talking to Mr. Gray for a little while, and then he came and called Joe. He called him out from the wharf, and they went about twenty-five yards from the place, and when he came back he said, "Well, boys, let's go home;" and we took our barrows and went out, and sat at the supper table, and he said, "Well, boys, I have got no more work for you." I said, "Why?" Then he laughed and he said, "You fellows can't do my work." He could not tell us he was compelled to discharge us. He said afterwards, "Leo, I am sorry I have to discharge you; you are a handy man;" and he said, "You know how it is; I have two children and a wife, but I have a lot of influence down town, and if I can do anything for you, I will try and do it. If you only knew how to boil acids, I could get you a job in the powder factory."

Q. Did he ever find fault with you for not doing his work? A. No, sir; I am certain I can do any kind of work; before that he used to pass my house every day and get me out to work. Now, he is living in the house, and there are a lot of idle men, and he can go around to Kerwin's looking for men, and he can come up to the house and get them every day, so I must be able to do his work.

Q. Have you received your pay? A. Between that time and I got discharged the first, there was; Joe came to us and wanted more men, he says, "I have the other job now," and he went down to Second Street Wharf, and Mr. Mertens took this job off Joe, and gave it to a sub-contractor; the sub-contractor works for the company, but he did not tell me where we were going to get paid, or anything.

Q. They paid you by the middle of the month? A. So I heard; so the men told me in the office here.

James Kerwin.

Called and sworn.

Mr. Enos: You have heard the testimony here to-day by the witnesses, in relation to the men employed on the seawall being compelled to board at your house? Answer—Yes, sir.

Q. Have you any knowledge of any such thing being done by anybody connected with the construction of section six of the seawall? A. No, sir.

Q. Or construction of section five of the seawall, as well as the construction of section six; whether you have any knowledge of anybody being compelled to go to your house as a condition for obtaining work on that section of the seawall? A. No, sir.

Q. There was no such arrangement that you ever knew of being entered into? A. No, sir.

Mr. Days: Did Mr. Hackett, or any of the gentlemen under him, make any arrangement with you to go security for the board of men working there? A. Yes, sir.

Q. Do you know of any firm, or anybody connected with them, making any commissions on the men that boarded there, by getting men to board at your house? A. No, sir; not so much as a cigar. There was a man by the name of Barry who said he did, but I do not know anything about it.

Further hearing adjourned.

SEPTEMBER 11, 1885.

JOHN BROWN.

Called and sworn.

MR. ENOS: What is your name? Answer—John Brown.

Q. Where do you live? A. 36 Clay Street, San Francisco.

Q. How long have you lived here? A. I came here the tenth of December, 1884.

Q. You have lived here since the tenth of December, 1884? A. Yes, sir.

Q. Are you a citizen of the United States? A. No. I have my first papers; I am three years and four months in the United States.

Q. What is your occupation? A. Laborer.

Q. Were you employed on section six of the seawall? A. I don't know whether it is section six; I know I was employed on Sheep Island by McMullen.

Q. For work on the seawall? A. Yes, sir.

Q. What kind of work did you do on the seawall? A. I was laboring, pick and shoveling, using wheelbarrow and rolling rocks down, and sometimes putting it in the skips to carry it to the scows.

Q. Where is Sheep Island? A. About six or seven miles from here.

Q. Across the bay? A. Yes, sir; the left side from Goat Island.

Q. What kind of material do they get on Sheep Island? A. Sometimes they get rock and sometimes dirt, and sometimes rock below the weight demanded. The pieces should not weigh less than five pounds, but they put smaller. That is what all the boys can tell.

Q. You put in all sizes of rock? A. Yes, sir.

Q. Do you know what size of rock they were to put in? A. Yes, sir; everybody knows, not less than five pounds.

Q. A piece of rock should not weigh less than five pounds? A. Yes, sir.

Q. Do they ever put in smaller pieces than that? A. Yes, sir; even smaller than a pound; or even smaller than an ounce; put it in with a shovel.

Q. Tell what kind of rock they put in? A. Poor rock and dirt.

Q. You say they put in poor rock? A. Yes, sir.

Q. Did they put in dirt, besides? A. Yes, sir.

Q. Where they should put in stone? A. Yes, sir.

Q. They put in dirt and light rock? A. Yes, sir.

Q. Was there not objection made to putting in that material? A. There was a time when an objection could be made, and when it could not be made. They worked us about fourteen hours a day.

Q. How long did you work on section six of the seawall? A. I worked from the eleventh of April about two weeks, and afterwards I got hurt and I was sick ten days; and was working again seven weeks; in all, nine weeks.

Q. Who hired you? A. I got it from the employment office, Ewer & Co., on Clay Street.

Q. Did you work by the day, or hour? A. 17½ cents an hour.

Q. How many hours a day did you work? A. First ten, and then twelve. They now work them twelve hours.

Q. When they put in this poor rock and small stone, did anybody object to it or protest against it? A. Yes, sir.

Q. Who was it? A. The inspector, Mr. Creighton.

Q. Was Mr. Creightou employed as an inspector? A. So we were told.

Q. What did Mr. Creighton say? A. Sometimes he explained that we ought not to do it, and sometimes quarreled; and once there was a fight over it.

Q. Did Mr. Creighton fight about it? A. Mr. Creighten went up to the scow and found the dirt that was in that morning, and he told the second boss—Gus, we called him—he told him to put it out. Well, he quarreled with him, and he stood up against him in a position to fight him, and Mr. Creighton would not fight. But he still called him names, and then Mr. Creighton knocked him down.

Q. Creighton knocked down this man that was putting in the bad material? A. Yes, sir.

Q. What did he knock him down with? A. His fist.

Q. Did the dirt and poor stone go in? A. Yes, sir.

Q. Now, was there a good deal of the poor material put in? A. That is a matter of estimate. In my opinion it was about 20 to 25 per cent, but I did not stand at the scow.

Q. In your estimation, there was while you were there about 20 to 25 per cent of the material, dirt and small stone, put in that should not have been put in. A. Yes, sir; it was poor rock and small stone and dirt.

Q. Do you know anything about any Chinamen being employed on Sheep Island? A. There were three Chinamen, a cook and two waiters; that is all.

Q. They were employed to cook for the men who were working on the seawall, by the contractors? A. Yes, sir.

Q. You boarded over there? A. Yes, sir.

Q. How many men were employed there? A. In the beginning, when we started, I think there were forty, and afterwards there were more than seventy; most of the time more than seventy.

Q. Do you know of any accident happening to the men that were working there? A.

There was a great many. I know two men got hurt while I was there. I was there when they sent a witness from Sheep Island to testify it was his own fault.

Q. Did you get hurt there? A. I got hurt.

Q. How did you get hurt? A. They rolled down a rock at that time, and a piece of the rock struck me on the head; I felt very bad, but we were sent to go to work.

Q. Was that through the carelessness of the men? A. I am sure it was so.

Q. Was there anybody else hurt through carelessness in working over there? A. At the time I got hurt there was a man got hurt every day.

Q. Through carelessness? A. Through carelessness I was hurt.

Q. Did you have any of your limbs broken? A. My finger is now stiff. I do not know whether it was broken—the third finger on the right hand.

Q. Was that brought about by the carelessness of the men? A. Yes, sir; for I think they ought to have a man to warn us when the rock rolls down.

Q. How many accidents do you think took place, through the carelessness of the contractors, over on Sheep Island? A. I know a man who lost the whole right arm; he is in town now, I think.

Q. Was that through carelessness? A. Yes, sir; the beam of the derrick broke down and sent a skip over, and the skip struck him on the head, but did not hurt him much, but hurt his arm; it has paralyzed it, and he has it now in a sling. There was one man got hurt who had his legs broken.

Q. How did he get hurt? A. I did not know at that time. I heard it among the workmen. Everybody knows it in town that he got hurt, as they say, by the carelessness of the company. He was taken to the County Hospital, and died there.

Q. How many people do you think got hurt through the carelessness of the company? A. One time I think as many men got hurt as there were days.

Q. You worked nine weeks. That would be over fifty men? A. No; not the first time; two weeks the first time, and I think it was about fourteen to sixteen men.

Q. Some of them with fingers broken, and some with shoulders broken, and others with legs broken? A. Yes, sir; and I call them hurt when they are compelled to leave work. I know a great many that got hurt and got well afterwards, but they were compelled to give up work.

Q. What did you have to pay for your board? A. $4 50 a week, or 21½ cents a meal.

Q. What kind of food did you have? A. Very bad, in general; mostly very bad; four days there was not any bread, so I was told; but I was not there at that time, and when I was there it was very often rotten meat.

Q. Did it stink? A. Yes, sir; and stinking butter.

Q. You had miserable food, did you? A. Yes, sir; and often there was not enough to satisfy the men.

Q. Did you work there when they had not any bread? A. No; but it is a fact, and everybody can testify to that.

Q. You had stinking meat? A. Yes, sir.

Q. And stinking butter? A. Yes, sir.

Q. What was the matter with the butter? A. It was not good.

Q. You had poor food? A. Yes, sir; very poor, and often not sufficient.

Q. The quality was poor and the quantity was very light. Did you have food enough and good enough for a workingman? A. Sometimes only.

Q. Did you make complaints? A. Once, but it was no use, for the white men always stood apart; but once in the beginning there was about 25 to 30, and they were complaining over the bad food over there, and one day they came in the morning and there was no breakfast at all, and they left altogether.

Q. You say that the men left because they did not get enough to eat? A. Yes, sir. At that time I was working there.

Q. You paid $4 50 a week? A. Yes, sir; and I told the boys once in a joke that we could get, for $4 50, better board than we were getting there. It did not please me.

Q. Did you work there until you were discharged? A. I was discharged with six other men. They discharged the parties as the work got slack. I belonged to the third party that was discharged. There were ten discharged, and then fifteen, and the third party was seven altogether. Now they have started again.

Q. All the time you were at work on this seawall, did you ever work over on Sheep Island? A. Yes, sir.

Q. How long did they have these Chinamen there? A. There was one Chinaman when I went to work there.

Q. Was the Chinaman there when you left? A. No; the week before I left they put a white man on.

Q. When did you leave? A. It was about the twentieth or twenty-first of August.

Q. And when you left they had no Chinamen? A. No, sir.

Q. When did you go there? A. I went on the tenth and started to work on the eleventh of April.

Q. And they had this Chinaman there? A. Yes, sir.

Q. And they stayed there to the twentieth of August? A. They stayed until about the tenth of August, and I left on the twentieth.

Q. The Chinamen did the cooking? A. Yes, sir.

Q. Were they good cooks? A. The first time when I stopped there there was a good cook, but he got discharged, I don't know what for, and afterward they were bad cooks and very insolent to us.

Q. Did you hear the inspector protest more than once against the material for putting into the seawall? A. Several times a day, and several times an hour.

Q. They kept right on putting it in? A. We worked fourteen hours, and he thought that we ought not to work fourteen hours, and he went away every day about eight o'clock, and we were working there at five o'clock in the morning; they had two parties to work, one worked from five o'clock to four, and the other from eight to seven.

Q. Did the contractors make you work all the time? A. Yes, sir.

Q. Did they work you fourteen hours? A. We worked ten hours, but fourteen hours work was done on the place.

Q. Did you work more than ten hours a day? A. No, sir.

Q. Then a fresh lot came on and worked another? A. Yes, sir.

Q. How many hours a day did you work? A. Ten hours a day.

Q. Did anybody work more than ten hours a day? A. Yes, sir; afterwards.

Q. How many hours did you have to work? A. Twelve hours.

Q. Did you work fourteen hours a day? A. I say fourteen they kept at work in the quarry.

Q. Did one single man work more than twelve hours a day? A. No, sir.

Q. Did you work twelve hours? A. Yes, sir.

Q. Were you asked and compelled to work twelve hours a day? A. Yes, sir.

Q. How many men were working twelve hours a day? A. Everybody.

Q. How long did they work twelve hours a day? A. Since the white cook came they were working twelve hours a day, about five weeks back.

Q. Did the men that worked twelve hours a day want to work twelve hours a day? A. No, sir.

Q. The contractors made them work? A. Yes, sir.

Q. Do you know a man by the name of Joseph? A. It seems to me that is Gus, as we call him.

Q. Was Gus foreman? A. I say that is him, that is the man that Creighton knocked down.

Q. Why did he knock him down? A. Because he told them to put dirt into the scow.

Q. Joseph then was cheating the State? A. Yes, sir.

Q. What did Gus or Joseph say or do? A. He said: "For God's sake put in anything you can."

Q. Did he tell you that? A. He told everybody.

Q. He said: "For God's sake, put in anything you can get?" A. Yes, sir.

Q. Did he say anything about its being for the State and it did not make any difference? A. I was personally told once by the other boss when I wanted to throw out bad pieces of rock, he says: "It makes no difference to you, put it in; they want dirt to fill up the holes between the rocks."

Q. Was this dirt and stuff put in where nothing but rocks should be put in? A. Yes, sir.

Q. And Joseph said, to put it all in? A. Yes, sir.

Q. And the other boss said to put it in? A. Everybody. Young was Superintendent, and Gus and the second boss Charley.

Q. Have you seen Joseph lately? A. When I left only.

Q. Did Joseph tell you that it did not make any difference? A. The working bosses told us.

Q. Did he work on Sheep Island? A. Yes, sir; he is head boss on Sheep Island. We call him Gus, but I remember he was working when I started to work there.

Q. Mr. Joseph is one of those working for Mr. Mertens' company? A. I think there is among them a name like "Mertens." I was given a card once, and I saw a name McMullen.

Q. Do you know anything about the measurement of dirt or weighing of stone? A. No, sir; I don't know anything about that.

Q. When they worked you twelve hours a day did they pay you by the hour? A. Yes, sir; the workmen did not know about the time; but I knew about it afterwards, and I saw it was by the hour.

Q. But when you hired out, was it by the day or hour? A. When I got work from the employment office they told me it was $1 75 a day, but after some days they explained it on the island that we were working by the hour; for one day they worked us eleven hours, and they told us we would get paid by the hour.

Q. They paid you? A. Yes, sir.

Q. You had poor food? A. Yes, sir; very poor.

TIMOTHY F. JENKINS.

Called and sworn.

MR. ENOS: Are you a resident of San Francisco? Answer—Of Oakland.

Q. Are you employed in the construction of section six of the seawall? A. I am employed by the State Harbor Commissioners.

Q. In what capacity on this section? A. I have been supervisor of construction and for the measurement of the stone barges as they come in.

Q. How long have you been employed by the Harbor Commissioners? A. Since the second of April, 1884.

Q. Occupied that position in the construction of sections six and five? A. I was weigher on section five most of the time, until the latter part.

Q. Will you please tell us your duties as supervisor, etc.? A. My duties are to build the work according to the plan of the Chief Engineer; and, also, I measure the barges as they come in, as provided, both light and loaded. They have ceased bringing rock just now with barges, and I am attending to my other duties—seeing the wall properly constructed.

Q. Do you attend to the weighing of the stone now? A. No, sir; Mr. Crowley does that.

Q. Or measuring of the dirt? A. No, sir.

Q. Are you a mechanic? A. No, sir.

Q. Have you any experience in relation to the construction of seawalls? A. I have experience in building railroads and handling rock.

Q. Do you understand the measurement and weight of rock and dirt in the construction of public works of that character? A. I do.

Q. You weigh your rock? A. Yes, sir.

Q. You supervise the weighing of the rock? A. I did.

Q. If you were supervisor of construction, you know the plans and specifications, and what it calls for? A. Yes, sir.

Q. The specification calls for eighty-nine thousand tons of rock, for eight hundred feet of section six of the seawall? A. Yes, sir.

Q. It was your duty to see that rock was properly placed in the seawall? A. Yes, sir.

Q. It was your duty, also, to see that the quality of rock was brought there? A. Not particularly so. The Harbor Commissioners had two rock inspectors at the island. They were instructed to be very particular not to allow any rock to go through but was of good quality. However, on most occasions I examined the rock; that is, walked over the barge.

Q. That was not your particular province? A. No; although if I saw a bad load of rock I should condemn it. All the rock was especially fine from that island, all of it. There were two or three barge loads that came there of red rock; that is a hard character of rock, but it was shaley and broke to pieces, so much so that the engineer condemned the rock at once and would not receive any more of that quality. There were only two or three barge loads.

Q. What came from there was put in the wall? A. Yes, sir.

Q. Do you know of any dirt being put in there, or any small material, such as small rock, that did not conform to the specifications? A. There were some small rock, but the specification limits the smallest rock to five pounds. The rock that was broken finer by handling of course went in, as reserved by the specification. I could not tell whether there was any smaller than that went in.

Q. You heard the last witness testify that they shoveled the small material; do you know whether that is so or not? A. I do not. I have never been to the island; I have heard it spoken of.

Q. You say it was your duty to see that the dirt was brought there? A. The rock.

Q. Didn't they bring the dirt from there? A. No, sir; the rock.

Q. What did the contract call for per ton for rock? A. 63½ cents a ton for rock of 2,240 pounds.

Q. Do you know anything about the measurement of the dirt? A. I know of it; I witnessed it coming there all the time.

Q. Did you keep account of it? A. No, sir.

Q. Do you know whether they measured the dirt, or took the size of the car? A. I know they did.

Q. They measured the dirt on the car? A. Yes, sir.

Q. What does a car contain? A. When they are well loaded they hold five yards. The tallymen of that material have side-boards to put on the side of the cars and level it off to water level, so as to take just the proper measurement, and when it does not come up to full measurement they are docked the amount not delivered.

Q. What was the size of these cars when they are full to water level? A. I could not tell from memory. I have seen figures, but I don't recollect.

Q. If they are only two thirds full there is some discount? A. They are not allowed for it; they are not allowed for any fraction of a yard more than they bring.

Q. That is your knowledge? A. Yes, sir; and I watch them all the time; I see the carloads coming in.

Q. In addition to your other duties? A. I may not have seen every car measured.

Q. Did you see every car of dirt? A. I do when I am there.

Q. But did you see them all? A. I did.

Q. Are you prepared to swear you have seen every carload of dirt delivered and put in section six of the seawall? A. No, sir.

Q. Can you tell how many? A. No, sir.

Q. Then what you have seen or observed justifies you in making the remark that the State's interest has been well guarded in relation to the measurement of the dirt? A. That is what I mean to say.

Q. Who is the man that has charge of that? A. M. J. Crowley.

Q. As far as you know, they have got sixty thousand tons of stone from Sheep Island? A. Near to that.

Q. Do you know what the contract calls for in relation to yards of dirt, and how much per yard? A. 33¼ cents.

Q. Have they quit bringing material from Sheep Island? A. They have, sir, at the present time, and whether they will resume work there and bring any more rock to this section I can't say. Mr. Mertens told me that he was getting a lot from Second Street.

Q. Where are they getting their material from now? A. Sansome Street and Telegraph Hill.

Q. Blasting in there? A. Yes, sir.

Q. Where do they get the dirt from? A. In the vicinity of the woolen mills at North Beach.

Q. You heard Mr. Brown testify in relation to protests that were made by Mr. Creighton, who represented the State in the delivery of this rock? A. Yes, sir.

Q. Do you know anything about protests being made? A. I know that the men told me that they protested and guarded the State's interest to that extent that there is nothing of that kind done, and I could swear positively that there was nothing of that kind delivered, for if there was any considerable percentage of dirt I should see it run out.

Q. You were aware that Mr. Creighton had a fight and knock-down on that question? A. I heard so; I heard Mr. Creighton speak of it.

Q. Did Mr. Creighton tell you that the reason of the difficulty was they were putting in material that the contract and specification did not call for? A. Yes, sir.

Q. Did Mr. Creighton tell you that was the reason he protested against it, and why he knocked down the man that was putting in the material? A. Mr. Creighton told me that this man was drunk all the time and talked to him in a very abusive way, and when he told the men not to put in certain material, he interfered and called Creighton some bad names and he knocked him down.

Q. The difficulty arose out of a protest that Mr. Creighton, the representative of the State, made against putting in this material that was not called for in the specifications? A. So I understand.

Q. Did you hear Mr. Brown, the last witness, testify that he was told to put it in? A. I did.

Q. Are you prepared to say that the material described was not put in? A. There was nothing of the kind brought there.

Q. As far as your observation went? A. There is no barge load that comes there that I don't examine.

Q. Do you say that there was not material smaller than five pounds, and stones and dirt mixed in with it? A. There is undoubtedly smaller than five pounds, for it is in handling they may have put in less.

Q. You heard Mr. Brown testify that they shoveled it in with shovels, and when protest was made, their boss, Mr. Joseph, told them to put it in? A. I heard him swear to that.

Q. Do you swear that did not take place? A. I was not an eye witness; but I could swear there was little, if any, dirt dumped out of the barges.

Q. You were employed by the State in connection with sections five and six? A. Yes, sir.

Q. How many hours a day did you work? A. As long as there is any work to do.

Q. How many hours did you work? A. Usually ten hours.

Q. What compensation do you receive? A. $125 a month.

Q. And all the employés of the State in construction of this seawall were employed ten hours a day? A. Yes, sir.

Q. Did Mr. Creighton receive $125 a month? A. Yes, sir.

Q. Do you know of anybody employed by the Harbor Commissioners on this work who work less than ten hours a day? A. I don't know.

Q. How many barge loads have come from the island? A. I have not got a memorandum with me; I have a book that contains everything.

Q. You have a book showing the number of loads of stone that have been put in section six of the seawall? A. Yes, sir; and also their weight.

Q. And the date of their arrival? A. Yes, sir.

Q. Can you give us that information? A. I could by getting my book.

Q. Will you be kind enough to furnish us the information? A. It would be quite a job, but I will do it.

Q. How many tons do they take on a barge? A. About 275 or 300.

Q. Then about five loads would average a thousand tons; that would only be three hundred barges; that would not take long for you to get at? A. I could do so. All these official reports of mine are in the Engineer's office, in a book; any person can go there and get the data. In discharging the buckets the side gates go out, and you can tell whether there is any amount of dirt sliding through. It would make the water muddy, and you could see it, also, when there is any quantity of dirt. There is a little dirt facing to the stone, which would be trifling, however.

Q. You do not say that you were in a position, or was it your duty—as they had inspectors over on the island—to see as to the quality of rock. Your duty was to see as to the quantity? A. Yes, sir; and place the rock in proper place.

Q. Had you any means of ascertaining the quality of the rock, except what is on the top? A. I had not.

Q. How many yards of dirt did they estimate it would require? A. 150,000 yards of sand. I think, in my judgment, it will take 23,000 or 24,000 tons of rock to do it; but they have only lately fairly got started on this sand. The earth, or sand-filling, I do not know how much they have put in.

Q. How often do you have to make a report to the Harbor Commissioners? A. Every two or three days, the number of loads received.

Q. Do you know anything about the number of cars to each train? A. They run 18 and 15 part of the time. At the present time they have got 18 cars.

Q. That would be 60 to 90 yards to the load? A. There is an account kept of the number of yards and the number of cars; when they do not bring five yards they do not get credit for it. The State is well guarded. If there ever was any honest work done, it is under this Board of Harbor Commissioners. They won't have anybody but who are honest and they know to be reliable, and we have a very efficient Engineer. On the arrival of every train, Mr. Crowley steps to the door and counts the cars of the train.

Q. And they are level full? A. The cars can't be heaped up now, for they are drawing sand and they can't put on a full load; but when they are drawing damp sand they can stack them up on each side.

Q. I thought they brought them level full? A. No; they stack them up on each side, and then the tallyman, to ascertain their true measurement, puts on side-boards, and if they measure five yards, they are level full.

Q. You conclude that the seawall, if it is built of the material as they are building it, will be durable? A. Yes, sir.

Q. Is there any reason why it should not be lasting? A. I think it would last for centuries.

Q. Do you board the scow every trip? A. No, sir.

Q. As I understand, the scow is loaded at Sheep Island, and comes up to the wharf and then there is a trap door and the stuff slides off? A. Yes, sir; on an incline.

Q. Is that material, as it passes down into the water from this boat, exposed to your view? A. You can see it as it slides off.

Q. Is it exposed to your view; can you see all the material as it goes off? A. Yes, sir.

Q. Would it be difficult for you to tell, then, if there was any large amount of dirt in the cargo? A. You can tell whether there is any large quantity.

Q. You measure it by the draft of water? A. Yes, sir.

Q. Are there certain watermarks on the vessel? A. Yes, sir; it has six gauges. One fore and aft, and one on each side, and one in the center, so many feet and inches to the draft.

Q. So if there is two hundred tons it goes down to a single mark? A. Yes, sir.

Q. Suppose the water is rough? A. It is not very rough in there.

Q. Suppose there is a strong wind and surging waves, would it not be very difficult to tell? A. If it was very rough; but if there was a gentle wave I would watch it and take the mean difference between the rise and fall: but as a general thing there is very little trouble about that.

Q. Have you ever been approached by the contractors in relation to the weight of that rock? A. Never, sir.

Q. Your weight has been accepted both by the contractors and the State authorities; they are governed and controlled by it? A. Yes, sir.

Q. Has there been any dispute between you and the contractors? A. No, sir. Mr. Mertens has generally been around the boat with me, and we had a difference about one tenth of a foot.

Q. Then every barge that comes the contractors have a representative there, and you have to see that your weights agree? A. Mr. Mertens is generally down there himself.

Q. The contractors are either there themselves or have somebody else there? A. Not every time, but mostly.

Q. Then they take your weight? A. Yes, sir.

Q. Where do you stand at the time they are discharging the barge? A. I stand at the end of the barge, on the wharf, one end or the other, after getting the barge in line.

Q. Is the barge so placed that you can see these marks on the barge, on the sides or ends? A. When the barge arrives and is placed in proper position, they send a small boat to me by one of the bargemen, and I go around, so I can look close at it and make no mistake.

Investigation closed.

JOHN S. ENOS,
Commissioner.

The following communication was also addressed to your Excellency, subsequently to said report, viz.:

THE RESULTS OF THE COMMISSIONER'S INQUIRY INTO STATE CONTRACTS, AND THE DUTY OF THE CHIEF EXECUTIVE IN THE PREMISES.

To his Excellency GEORGE STONEMAN, *Governor of the State of California:*

SIR: During the twenty-sixth session of the California Legislature a resolution was introduced in the Senate and referred to the Committee on Labor and Capital.

The resolution, as adopted by the Senate, is as follows, viz.:

Resolved, That the Commissioner of the Bureau of Labor Statistics be and he is hereby requested to inquire into the condition of the laborers employed by the contractors on the seawall at San Francisco with reference to whether what is known as the "truck" system is in vogue there; whether or not the eight-hour law (Article XX, Section 17, State Constitution), applies to contracts let by the State, and whether or not such laborers are interfered with in the exercise of the elective franchise, and with reference to such other matters as may affect them and other laborers employed by the State Board of Harbor Commissioners, and all the suggestions set out in this report, and report the same to the Governor at as early a date as is consistent with a thorough investigation thereof.

DOUGHERTY, Chairman.

In compliance with said resolution and report, a thorough and complete investigation has been had, and I herewith submit to you the report of the same, together with such recommendations and suggestions as I have to make in relation thereto.

Chapter XX, Title VII, of the Political Code, Sections 3244–5, reads as follows, viz.:

> Section 3244. Eight hours of labor constitute a day's work, unless it is otherwise expressly stipulated by the parties to a contract.
>
> Sec. 3245. Eight hours constitute a legal day's work in all cases where the same is performed under the authority of any law of this State, or under the direction, control, or by the authority of any officer of this State acting in his official capacity, or under the direction, control, or by the authority of any municipal corporation within this State, or of any officer thereof acting as such, as a stipulation to that effect must be made a part of all contracts to which the State or any municipal corporation therein is a party.

Article XX, Section 17, of the Constitution of the State of California reads as follows:

> Eight hours shall constitute a legal day's work on all public works.

One of the duties requested by the above resolution is whether Article XX, Section 17, of the Constitution, and Sections 3244–5 of the Political Code (which declare that eight hours shall constitute a legal day's work) applies to contracts let and made by the State, through its legally constituted officers, acting in his or their official capacity. I find it does, and applies to all public work performed by the State.

This section of the Constitution, after a thorough and exhaustive debate, was adopted in the Constitutional Convention by a vote of ninety-nine ayes in favor of it to seventeen noes against it, which shows that it was almost the unanimous act of the Convention in adopting it.

From a perusal of the debates had upon the question while it was under consideration in the Convention, I am satisfied that it was the intention of the framers of the Convention and the people who adopted it that all public work done by or for the State of California should be done under said section, and that eight hours should constitute a day's labor in such performance, whether done directly by the State or by contract, and that it is the duty of the Board of State Harbor Commissioners to enforce the provisions of said section upon all work in its jurisdiction, not only for the reason that their oath of office require them to support the Constitution and the laws of the State, but there is an express covenant in the contract that eight hours shall constitute a legal day's work under it, etc. Yet the testimony shows that in spite of the fact that the eight-hour clause was inserted in the contracts, signed by the Harbor Commissioners and contractors, it was violated by the contractors by compelling their men to work ten or more hours a day, and not enforced by the Commissioners in that respect.

Article XX, Section 17, of the Constitution, and Sections 3244–5 of the Political Code, declaring eight hours a legal day's work, is in as full force and effect this day as it was the day it became the supreme law of the State.

As there has been an entire disregard of the constitutional provision relative to the eight-hour clause, and a violation of Sections 3244–5 of the Political Code, I respectfully call your Excellency's attention to the same, for such action as you may deem necessary and proper, that the constitutional provisions and sections above referred to be enforced on all works done by and for the State.

Section 7, of Article V, of the State Constitution is that the Governor shall see that all laws are faithfully executed, thereby placing in the hands of your Excellency the power and duty to assist the laboring men of the State, by seeing that the eight-hour law is enforced upon all public work, and not allowing contractors and officials of the State to make contracts to perform State or public work with an eight-hour clause in it and compel their laborers to work more than eight hours a day.

The Constitution of the State is mandatory upon your Excellency to see that the above provisions be enforced, and I doubt not that upon your receiving official information from a constituted officer of the State, whom the Legislature has specially requested to inquire into and report to your Excellency whether or not Article XX, Section 17, of the Constitution has been enforced, you will do the same as Hon. Grover Cleveland, the present Chief Executive of the United States, in a recent interview with Mr. O'Neil, the Chairman of the Committee on Labor and Capital of the House of Representatives of the present Congress, said: "I believe that the law [meaning the eight-hour law] is a sound one and a good one, and that it should be enforced to the letter. I have no information of instances of its violation or evasion, and if such instances are presented to me I will see that the abuse is remedied and the full spirit of the law is enforced, which I understand to be to pay workmen in Government employ for eight hours' work daily what is paid outside of Government employ for a full day's work. The Government cannot afford to set the example of non-enforcement and non-observance of its own enactments."

What plainer or more explicit language can we use than this?

The workingmen who labor for the State should have the benefit of the constitutional provision relative to working eight hours per day, and they should receive for said work full pay; they are entitled to the sympathy, protection, and support of the commonwealth, and all the constitutional provisions limiting the hours of labor should be rigidly enforced.

The sections of the Political Code, above referred to, have been the law of this State since February 21, 1868—over eighteen years—and the constitutional provision has been the supreme law over six years, and it has been evaded and violated by officials of the State, whose duties empower them to build and keep in repair our seawalls and harbor fronts, costing the State millions of dollars; large percentage of the money accruing to contractors, which should have been paid to the laboring men who did the work; and it is high time that the laboring men who build our public works and labor for the State should have the constitutional provisions enforced, and it is one of the official duties of the Commissioner of this Bureau to *inquire* into the *condition* of labor throughout the State.

Why should the State compel the laborers (who work by manual labor) to labor more hours than the officials of the State?

In conclusion I call your Excellency's attention to the fact, that in accordance with Senate resolution of March 3, 1885, after a thorough investigation, I forwarded to your Excellency my report and recommendations some time ago; and being the first official notice given to your

Excellency or any of your predecessors, of the evasion and violation of the constitutional provision relative to the hours of labor on public work, I hope you will enforce the same, thereby recognizing that the welfare of the laboring man is entitled to constitutional and legislative care and protection.

Respectfully yours,

JOHN SUMMERFIELD ENOS,
Commissioner Bureau of Labor Statistics.

The next investigation had was at the request of the Boot and Shoe Makers' White Labor League, a corporation created and existing under and by virtue of the laws of the State of California, having a membership of over five hundred white boot and shoe makers.

The investigation was had with a "view of ascertaining the position of the boot and shoe trade as regards the Chinese, and of devising some means of ousting them from said trade."

The following is a copy of the report of the investigation, viz.:

San Francisco, February 25, 1886.

To the Officers and Members of the Boot and Shoe Makers' White Labor League:

Gentlemen and Sirs: In compliance with a resolution adopted by your association requesting me, as the Commissioner of the Bureau of Labor Statistics, to investigate with a view of ascertaining the position of the boot and shoe trade as regards the Chinese, and of devising some means of ousting them from said trade, I have had several meetings at the office of the bureau.

That all the persons whose names were furnished me were regularly subpœnaed, and attended the respective meetings, and were examined under oath. That such witnesses so examined were from the most important and largest wholesale manufacturers, importers, and dealers of boots and shoes, as was also some from among the retail dealers in the trade. Among some of the witnesses heard and examined at the meetings were several Chinese manufacturers.

There was also present, both as witnesses and participants, several journeymen boot and shoe makers, and the officers of your League, who kindly assisted in the investigation.

The result of the investigation is very cheering to the friends of white labor on this coast, and there is now at the present time a very marked change in the tone of the manufacturers who had prior to the investigation employed Chinese, especially among those who did not hesitate to say that they could not do without Chinese hands, and those who said they preferred Chinese.

This marked change of tone needs no comment from me in this report, as it is now a historical fact that it is promulgated to the world at large that it has been effected, and through the labors of your organization and its members, and as a result of the investigation.

The white boot and shoe makers of this coast, according to the testimony, not only had the Chinese cheap labor to contend with, but also they had to contend with eastern manufactured goods imported to this coast, in this respect, viz.: the eastern manufacturer has one advantage over the San Francisco manufacturer—that is the showiness and style of the goods. But the shoe is much poorer, and it does not last nearly as long as the Pacific manufacturers', and eventually when the Chinese are driven out of the trade entirely there seems to be no reason why the Californians cannot meet the eastern manufacturers and successfully compete with them, on account of good leather, good workmanship, and attention to the requirements of the domestic trade and market.

As regards the number of Chinese factories in this city, I will state that there is, or was, in the neighborhood of thirty-eight, employing on an average 100 Chinamen each.

Some of these factories were operated upon a very large scale, and some upon a small scale.

There are about 1,200 white people employed in the manufacture of boots and shoes in the city, with scarcely any boys in the trade, although boys have been tried and were found to be superior to the Chinese.

According to the opinions of some of the witnesses, the reason the boys were not employed instead of the Chinese was because the manufacturers desired to use the Chinese as a leverage to keep down the wages of journeymen.

There are several manufactories in this city which are known as "white factories," owned by white men, in which Chinese are employed.

The Chinese employed in these factories could be replaced with white boys and girls, who would within six months thereafter be as perfect and thorough in the trade as the Chinese are. These boys and girls would not affect the journeymen, for the reason that when the supply of young workers became great enough, manufacturers on this coast could successfully compete with the eastern manufactured goods, especially, as some of the witnesses say, as the eastern cheap goods were inferior to the Chinese cheap goods.

Some of the factories supposed to be owned and run by the Chinese are, in fact, owned by white men, who allow their names and the name of their firms to be used by Chinese in the prosecution of their work in the manufacture of boots and shoes, one of the witnesses, S. A. Wood, Esq., of the firm of Hobart, Wood & Co., saying he has establishments all over town, and in no particular locality; that if he retired from the business it would probably break up half a dozen Chinese houses.

There are conditions of labor for which the present generation of laboring men are in no way responsible, yet in the case of the boot and shoe trade the very opposite view is taken.

It is within the period of twenty years last past that the Chinese have taken up and learned the manufacture of the shoe business, and some of the white manufacturers who first learned these Chinese the trade were witnesses before me, and stated that they had changed their minds and discharged all of their Chinese hands, supplanted them with white labor, and were going to put white boys in the factories, and in six months' time these boys could make as good a boot as any average Chinese, and that it was against the public policy by paying money to men who sent it away from the channels of trade and out of the country.

During the investigation a suggestion was made that a stamp to designate the kind of labor used in the manufacture of boots and shoes would be beneficial.

This suggestion was met with approval by almost the unanimous voice of those who attended the investigation in the interest of white labor, and has since been carried into effect by your League, and none know the result thereof better than your members and the users of the stamp.

The manufacturers' business has increased, thereby furnishing employment to heretofore unemployed white journeymen, boys, and girls.

Retail business has so increased that in several instances a number of extra salesmen and clerks have had to be employed.

And extensive preparations are being made by some of the manufacturers for the purpose of enlarging their factories, as in the case of Nolan & Sons, who suggested the use of the stamp, and will soon enlarge their now large factory, thereby furnishing employment to a larger number of persons than heretofore.

A large number of Chinese hands has been discharged by the white manufacturers, and the business of the Chinese manufacturers has decreased and is decreasing very rapidly.

All this has been derived from the issuance and use of the stamp, which is working a great reformation in the great industry of the boot and shoe trade.

At the present time the stamp is a trademark under the laws of the State of California, thereby being protected from infringement by evil-minded designers.

But I would suggest the propriety of the League, in conjunction with the manufacturers and dealers, the idea of having enacted at the next meeting of the Legislature, a proper stamp law—compelling the use of a stamp by all manufacturers, designating what kind of labor was used in the manufacture of goods made by them, and containing a penal clause in case of a violation of the law.

The investigation has developed the fact that the value of the boots and shoes used on the Pacific Coast amounts to about $5,000,000 per annum, and is rapidly increasing—of this amount about forty-five per cent are eastern manufactured—the balance being of the Pacific Coast manufacture.

Of this balance, fully two thirds are of Chinese manufacture, thereby giving to the Chinese over this sum of $1,833,000 per annum; the greater portion of which is taken away from the regular channels of trade, and the community at large derive no advantage or benefit therefrom.

To Mr. P. F. Nolan, of the firm of P. F. Nolan & Sons, and Mr. George K. Porter, of the firm of Porter, Slessinger & Co. and others, great credit and praise is due for their prompt and energetic assistance in this investigation—those gentlemen in no manner employing Chinese, nor handling Chinese made goods. Their public spirited actions and generosity during the entire investigation, should be commended by all classes who are in sympathy with the white boot and shoe makers, and wish to encourage them in this contest against the Chinese.

I am thankful to the officers and members of the League for their kind, uniform courtesy and assistance to me during the proceeding of the investigation, and in conclusion I will say that the investigation has practically demonstrated the availability of white boys and girls supplanting Chinese labor in the industry of the boot and shoe trade, if the concerted action of the manufacturers and dealers receive proper encouragement from the public at large.

Very respectfully,

JOHN SUMMERFIELD ENOS,

Commissioner of the Bureau of Labor Statistics of the State of California.

The following is a copy of the proceedings and testimony had and taken at the boot and shoe makers investigation:

On account of lack of sufficient appropriation therefor, the services of a shorthand reporter were dispensed with and the proceedings were taken and reported in longhand.

JANUARY 5, 1886.

Labor Commissioner Enos began an inquiry into the shoe trade in this city. The shoe manufacturers present as witnesses were George K. Porter, of Porter, Slessinger & Co.; Isaac Hecht, of Buckingham, Hecht & Co. and Hecht Bros.; Orin Jones, of Orin Jones & Co.; P. F. Nolan, of P. F. Nolan & Sons, and Slade A. Earle, of Earle & Co. P. B. Gallagher and President Clark, of the Shoe-makers' League, and Frank Roney, Chairman of the Federated Trades and Labor Organizations of the Pacific Coast, were present as representatives of the workingmen. Deputy Commissioner O. A. Bernard acted as Secretary.

GEORGE K. PORTER

Was the first manufacturer called upon. He stated that he had been in the shoe trade twenty years, and was the first man to make shoes in the penitentiary. He did not manufacture any particular line of goods.

COMMISSIONER ENOS said it would be understood that the witnesses were not called upon to state anything that would be detrimental to their business, or that might be considered as forming part of their private affairs.

MR. PORTER, continuing his testimony, said that he bought of other manufacturers, both here and in the East, and stamped all goods he made either with his own stamp or that of a customer. He was asked how many shoes four men could make in six days, and said that, of course, depended upon the quality of the goods made. The factory system, or different men handling different parts of a shoe, was the system in vogue, and four men would easily make eighteen pairs of shoes in a day. The kind and quality of shoes, witness said, were too many to enumerate. What was paid for making shoes he also thought could not be told, as it would take up space enough to cover the wall. Workmen were paid by the piece. Labor-saving machinery was a necessity, the witness thought, and he further expressed the opinion that no large factory could now be operated successfully without machinery. He thought machinery here had not caused manufacturers to dispense with any workmen, but, on the contrary, it had made work for larger forces. This, he explained, was owing to the fact that eastern goods would make shoe manufacturing on this coast unprofitable without machinery, and hand-made shoes would cost so much that half the population would have to go barefoot. Witness did not know how many Chinese were employed in the boot and shoe industry, and could not express a satisfactory opinion on the number of persons employed altogether. He did not know how many white manufacturers employed white men exclusively. He had had occasion to investigate the matter many years ago, and found that the Chinese Six Companies had a remarkable degree of information regarding the number of the men employed, and thought they could and would still give very accurate data in the same direction.

THE WITNESS was asked what were his annual sales. He declined to answer that question. He said the shoe manufacturing industry on this coast was comparatively small. All boot and shoe manufacturers were cutting their throats in fine style, and none of them had more orders than they could fill. If it was necessary, an approximate estimate of the shoe output could be obtained without going into the business of each dealer. Witness said he could not at the time state how many white shoe-makers he employed, but was willing to ascertain and inform the Commissioner. He employed no Chinese, but he purchased goods made by Chinese to an extent of one third of what he handled. Such goods were not stamped at all. He sold to Chinese manufacturers material for making shoes, but in a small degree, about one thirtieth of what he manufactured. Witness said positively that there was no demand for white-made goods as against Chinese goods. He thought in all branches of trade white men made better goods than Chinese, and because the white-made articles were superior customers preferred them. All things being equal as to quality and make, and Chinese goods being distinguishable from white-made goods, the latter would, he thought, be sought for because cheaper. The witness calculated that rough shoes could be made by Chinese for $3 a dozen less than by white men. A great deal of machinery required adept operators, and the Chinese were compelled to employ white men to run their machinery. This was against the Chinese manufacturer, who was compelled to pay such white workmen more than a white manufacturer would. On the other hand, the Chinese operators would not work for white men as cheaply or as many hours as for a Chinese manufacturer. A white operator excelled the Chinese in the output of his work, both in quality and quantity. Country dealers were not more favorable to white-made goods than city dealers. The goods being of equally good quality, they would take those which were cheapest, irrespective of who made them. This, he thought, would apply to all other trades as well. As to the relative difference in the price of eastern goods in this market and the home-made article, the witness said that the Chinese here could put up a shoe much cheaper than the eastern men could, though the work of the Chinese was far inferior in appearance to the others, and goods could not be brought here from the East and sold in competition with Chinese-made goods. The manufacturer here, in the first place, gets his leather cheaper than does the man in the East.

Mr. Clark, of the Shoe-makers' League, here asked Mr. Porter how it was that the eastern manufacturers could buy leather on this coast, make it up there and sell their goods here cheaper than our local manufacturers.

The difference in the price of labor was the reason given. Mr. Porter thought more than one third of the goods sold on this coast were made in the Eastern States.

Commissioner Enos stated that he had got statistics while East which showed that Massachusetts and Connecticut alone furnished 45 per cent of the leather goods sold on this coast.

Mr. Porter said that the only thing that sustained the white shoe-makers on this coast was their superiority over the Chinese workmen.

Commissioner Enos remarked that his official returns from all parts of the State went to show that 80 per cent of the clothing used by Chinese was imported. He asked what percentage of Chinese the witness thought used shoes made here.

Witness replied that a large majority of them used the goods of their own manufacture here. Witness thought the incidental expenses of manufacturers here were greater than elsewhere, and that though they had the advantage of better leather at cheaper rates, they were at a disadvantage.

Witness was asked whether he could suggest anything that would tend to get the Chinese out of the shoe business. He replied that he had long ago seen the Chinese would eventually control the trade. He said the Chinese question was a new one, and being such, our people and our statesmen were not prepared to handle it. He said he looked upon the Chinese statesmen as the greatest in the world, and their philosophers and their religious teachings were excelled by none. In short, he considered them, aside from mechanical progress, the most advanced nation on earth. Their final exclusion from the country he thought only a matter of time. Those who were here now, he said, had been brought here by people of our own kind. We might boycott them, but if we did they would get down from working for $1 to working for a half-dollar. They would still hang on. If a radical displacement was attempted, he said there were not white mechanics here to take their place. He had tried vainly to get men out here from the East. He thought many of the labor organizations on this coast were to blame for the Chinese being here by opposing the employment of apprentices. This caused wages to be higher, and naturally brought in Chinese and other cheap labor. He thought if that had been attended to in time, times would have been better here than they were now. The Chinese had made such inroads on his business that he would agree to make one thousand cases of boots and shoes and sell them to any one who would buy them, for exactly cost price, and use them against Chinese manufacturers. He thought Chinese labor on this coast in the shoe trade on the decrease. As to what means were best to oust the Chinese, he said it would be necessary to get men out here from the East, and put boys here into the trade as apprentices. This could not be done in less than three years. It could not be done in less than that time, because, if the Chinese were driven to the wall, there was no telling how low they might make and sell goods. Witness expressed the opinion that the Chinese opposition was now about extinguished, and that public opinion was now turning toward a boycott of Chinese goods. He thought there was no manufacturer on the coast who would not gladly substitute white hands for the Chinese. He stated that the eastern workmen would not come out here unless they could get better situations than the East afforded. This, he erroneously stated, was the case with the cigar-makers who recently came out.

Clark asked what would be the effect if the Legislature passed a law prohibiting aliens from engaging in business. Witness did not think such a law possible, or practicable if it were possible.

Clark then asked how it was that in 1868 he (witness) could get along without Chinese, but could not do it now. Witness said there was not the amount of eastern competition then that there was now. As to a stamp for all Chinese goods, witness said he thought it would be beneficial. Such a stamp should not be provided for in the shoe business alone, but in all others, and every manufacturer should be compelled to put his name on what he made; and it should be a penal offense to violate the law.

P. F. Nolan here said he thought a stamp of that kind would undoubtedly assist the white trade. He was both a manufacturer and a retail dealer, and thought no shoe man would oppose such a law.

Porter resumed, and said, that no Chinese were employed in the tannery business, except in the case of one sheepskin tannery. The latter had spoken of dispensing with its Chinese help, however. The average wages of shoe-makers was $16 per week, and witness said no tradesmen were so well paid as they. They were employed ten months in the year.

Commissioner Enos said he had information that there were seven thousand men in the shoe business, four fifths of whom were Chinese.

Witness thought that not nearly as many as that were employed. He thought about three thousand was the number employed in the city, and less than seven thousand in the State. The annual output he placed at about $5,000,000.

Frank Roney asked witness several questions as to the supplanting of hand labor by machinery. Witness said that thirty years ago a shoe-maker would turn out one pair of shoes per day; now each man turned out something over two pairs per day, though benefits had accrued in other ways which made the introduction of machinery a happy result.

Orin Jones

Was next placed on the stand. He said he was a manufacturer of ladies' shoes, and employed nothing but white help. He thought the displacement of Chinese in the industry could be arrived at best, by the manufacturer, retailer, and consumer discontinuing all business relations with the Chinese, and this he thought feasible. It could be done, unless people thought more of a few dollars than of their fellowmen. His goods did not come into competition with Chinese; but he thought a law making a stamp necessary would be effective, as people would know what they were buying, and those opposed to Chinese labor could give a preference to white goods. He thought if all manufacturers discharged their Chinese, they could easily get white men from the East to fill their places, as the wages paid here were higher than in the East. He thought the benefits arising from having white men in place of Chinese would amply repay the manufacturers for the change.

Porter received an affirmative reply from Jones, when he asked witness if he did not at one time employ Chinese and was forced to abandon the manufacture of a lower grade of goods and go to making a finer article on account of Chinese competition.

Isaac Hecht

Testified that he employed three hundred and seventy-five hands, both white and Chinese. Of these, ninety were Chinese, and fifty-seven white females. The wages paid to white men in 1885 were 80½ per cent and to Chinese 19½ per cent. The average pay for white skilled mechanics was now $18. The Chinese earned about $1 25 per day. The average cost per dozen for boots and shoes made by witness for 1883, was $9 39¾: in 1884, $9 21½; and in 1885, $8 22⅓. Witness said there were less than two hundred and fifty Chinese employed by white boot and shoe manufacturers in this city. He thought it would be a great benefit to him if the Chinese were not in the business here, and he would be willing to subscribe $20,000 to a fund for removing Chinamen from the trade altogether. The cost of producing goods by white men would not be more that 5 per cent more than the present Chinese rates. There were now about one thousand white men in the trade in the city. He did not believe there were five dealers in the city who did not patronize Chinese. He favored the stamp, but thought it would not avail, as the Chinese goods would be thrown into the market for so much less than the white-made goods that the public would buy them in preference. During the year just past there had been no time when a competent shoe-maker could not get employment in witness' factory. So far as ameliorating the condition of shoe-makers was concerned, there was no necessity for it, as their condition was as good as could be desired. Still, the Chinese in the field prevented many white people from coming hither. The wages had decreased probably 10 per cent, and the profits had gone down 20 per cent in the last ten years.

Roney asked witness where the competition between the white and Chinese would end. Witness could not express an opinion on this subject, but Porter thought the fight was already won, as the largest Chinese firms in the business were going to the wall, or had already succumbed.

Witness said that the white manufacturers had advantages by which they could in a short time overreach the Chinese. They could obtain material cheaper, and they had regular avenues of trade which the Chinese could not get. The laws to prevent aliens from engaging in business he did not think could be passed, but he thought the stamp would be a good idea if it would not work hardship upon the white manufacturer by making him expose the character of his goods and thereby drive customers from him to Chinatown. He admitted, however, that if the working people of the Pacific Coast did not purchase his Chinese goods he would cease to make them. Instead of a depression there had last year been an increase in business over that of the year before. He made and sold shoes here as cheaply as they can be sold in New York or Boston.

Mr. Jones remarked that as he saw it, the Chinese would either have to be legislated against or all business communication with them would have to be cut off.

Witness did not see how the Chinese could be legislated out of the country. It would be impossible to ignore them in business. He bought largely from Chinese, and found that it was absolutely necessary for him to do so. He bought goods from the Chinese and sold them without making any profit on them. He did this to successfully compete with eastern dealers.

Mr. Roney said he did not see why witness should employ Chinese goods against goods made by white men at the East.

Witness said he did it to bolster up San Francisco. He thought we should not look to the white men of the East, but should keep our eyes upon our own commercial interests.

P. F. Nolan

Testified that he employed white labor exclusively. He thought the stamp would make it difficult for dealers to sell Chinese goods. He was of the opinion that buyers would pay half a dollar more for a shoe made by a white man. The average difference in the price of the two lines of goods, he said, would be but twenty-five cents. Witness thought in a month a young man could get to make as good a shoe as a Chinaman, and by doing this goods could be made as cheaply by white boys as they are now made by Chinese. The shoe manufacturers, witness said, could do this more effectively than the cigar manufacturers.

HECHT presented the argument that if the manufacturers were compelled to discharge their Chinese it would also necessitate the discharge of white men, as it would reduce the volume of the business.

A General Discussion.

At half-past eleven o'clock the gentlemen settled down to an exchange of views on the subject. Messrs. Nolan and Jones, who employ no Chinese, were in favor of doing away with Chinese labor, and they related a number of instances of how ineffectual attempts to place Chinese goods in competition had been. Messrs. Porter and Hecht, who employ Chinese, could not see how white goods could compete with the cheaper article made by Chinese, and would not concede that a favorable outcome could be expected from a radical movement. Mr. Earle, who also employs Chinese, remained silent throughout the evening.

The investigation will be resumed next Tuesday morning, at 10 o'clock.

JANUARY 12, 1886.

The investigation into the shoe trade was continued before Commissioner Enos yesterday. J. M. Clark, and P. B. Gallagher, of the Shoemakers' League, were present, as was Senator J. M. Days. The following witnesses were on hand: William Buchanan, foreman, and Abraham Altmeyer, foreman and manager for Cahn, Nickelsburger & Co.; W. J. Jory, of Jory Brothers; Samuel Feder, of Rosenthal, Feder & Co.; Richard Pable, and J. F. Broderick, retail dealers.

MR. JORY

Was first sworn. He testified that he had been in the shoe business for nine years in this city. He manufactured ladies', misses', and men's shoes for the wholesale trade, but did no retail business. His annual business amounted to between $250,000 and $300,000. He employed one hundred white workmen and never employed Chinese. The average wages paid workman was about $16 per week as a general thing, but owing to Chinese competition during the past year, they had earned about $14 for men and $5 for girls, per week. Each year for several years there had been a decrease in the volume of business, and there had continually been unemployed white shoe-makers here. The witness said there had hardly been a week during the past year that seven men and a dozen girls had not applied to him for employment, some of them being willing to work for less than Chinese wages. This, he thought, had been brought about by the Chinese. So far as his experience went, Chinese got $1 per day, and were not paid for their services. Contractors collected their wages for them. Witness thought at least five thousand Chinese shoe-makers are employed in this city. He said he had a list of the Chinese firms doing business in this city, thirty-eight in number. They were as follows: Poy Kee, Stevenson Street; Quong Sing, 419 Market Street; Sing Kee, southwest corner Battery and Sacramento Streets; Hop Lee, southeast corner Battery and Sacramento Streets; Wo Gin, 423 Commercial Street; Chung Lung, 421 Commercial Street; Wo Lee Lung, 417 Commercial Street; Quong Sing, 319 Commercial Street; Quong Tai Sing, 413 Commercial Street, second floor; Young Kee, 413 Commercial Street, first floor; Yang Wo Sing, 413 Commercial Street, third floor; Wo Sing, 411 Commercial Street; Sin Kee, 409 Commercial Street, first floor; Sue Hah Kee, 409 Commercial Street, second floor; Quong Eat Chong, 311 Battery Street; John Lung & Co., 312 Commercial Street; Get Chung, 318 Commercial Street; Lee Yeek, 309 Commercial Street; Wung Wah Chung, 209 Front Street; Ho Fat, 318 Battery Street; Hue Kai, corner Clay and Front; Wing Wo Lung, 213 Clay Street; Quan Wo & Co., 315 Clay Street; Wing Chung, 413 Battery Street; Loi Mong & Co., 210 Jackson Street; Tong Hung & Co., corner Washington and Sansome; Wah Lung Chung Kee, 617 Jackson Street; Wo Hop, 623 Jackson Street; Wo Hop, 743 Washington Street; Quong Jow, 637 Commercial Street; Wing Lun, 626 Commercial Street; Wo Hung Lung, 19 Webster Street, upstairs; Hall Kee, 19 Webster Street, downstairs; Hung Hing Lung, 708 Sacramento Street; Qung Wah Lung, 609 Dupont Street; Hang Hop & Co., 840 Clay Street; Chung Hop & Co., 1012 Stockton Street; Quong Kee, 740 Jackson Street.

These thirty-eight Chinese shoe factories were found in about two hours search. Several have between two hundred and three hundred hands employed. Others are small, employing not more than fifty hands. Should judge the average to be about one hundred. There are probably a number of others not found.

Witness thought there were about one thousand white people employed in the shoe business in the city, and everything went to show that the Chinese were daily becoming more skilled in making shoes and were offering greater competition. There were scarcely any boys in the trade at present, but if the Chinese were not here five thousand could be placed at work. Boys had been tried and were found to be superior to Chinese. The reason these were not employed instead of Chinese, witness thought, was because the manufacturers desired to keep the Chinese as a leverage to keep down wages. He thought $21 was little enough for a journeyman shoe-maker to make, and that such wages would give justice to both employer and employed. The decrease in wages and the price of goods had been equal. The witness said a Chinaman could live on 10 cents a day, and the white workman could not live decently for less than an average of $1 50 per day. Witness understood that large Chinese contractors brought Chinese workmen here from China, and for the sum it took to pay their fares to this country they were bound to the contractors for a certain time, receiving no remuneration during that time. Only three white factories here, so far as witness knew, employed Chinese. A Chinaman, he said, would do a third less work than a white man and of a very inferior quality. He thought the Chinese were employed night and day, and he had investigated and found them working on Sunday also. The Chinese made goods of all kinds, from a brogan to a fine French kid shoe, and their competition had a very depressing effect on the price of goods. Witness said one Sansome Street firm alone had thirty-five "teams" running on ladies' shoes, and nine tenths of the California shoes handled by the firm were made by Chinese. There was no way for ordinary purchasers to tell whether goods are white or Chinese made. As a remedy against Chinese, witness said he would first have a stamp law passed, and every maker would be compelled to stamp goods made by them. He submitted in writing the following suggestions:

"First—By the people not patronizing any person who patronizes Chinese labor in any form.

"Second—By the retail shoe dealers not dealing with any person who employs any Chinese, or dealing in Chinese-made goods.

"Third—By our State and city officials enforcing all laws and ordinances to the full letter of the law, and obeying the Constitution of the State.

"Fourth—By the people calling the Legislature in extra session to pass appropriations for the enforcement of the laws, and to pass an alien Act not to allow any alien to carry on any business in the State of California, and to compel all persons employing aliens to put the word 'alien' on goods made by such people.

"Fifth—If all this failed, then the people should have a peaceful revolution. On a certain day set apart all to cease work in all factories—all laborers, in fact every person; stop the railroads and street cars, loading and unloading shipping, in fact stop the whole wheel of machinery."

The Commissioner then asked the following two questions, submitted by a manufacturer present, both of which were answered negatively:

"Can the boot and shoe manufacturers of this coast, both white and Chinese, supply the demand for such goods?

"Would the competition of eastern manufactured boots and shoes be as detrimental to the community as the competition of the Chinese-made boots and shoes?"

It was not thought possible to bar out eastern goods, and witness said the two goods were not at all in conflict. The eastern men make more wages while they work, witness said. They work only six months in the year, and that brings down the average, as the shoe-makers here work eleven months.

SAMUEL FEDER,

Of 33-35 Battery Street, was next sworn. He testified that he had engaged in the manufacture of boots and shoes for twenty years in this city. He could not furnish an estimate of his business from memory, but would submit it at another time. About 40 per cent of the goods manufactured by him was imported from the East. He employed from seventy-five to one hundred workmen the year round, none of these being Chinese. The average wages paid was $14 per week, and he thought wages had decreased 25 per cent in the last few years. Witness could not estimate how many were employed in the industry in the city. He said there were many idle mechanics in the shoe trade. This was because the demand was for cheap goods and white manufacturers could not make such goods in competition with the Chinese if they employed white men. One thing that handicapped white manufacturers, witness said, was that they had to put their stamp on the goods they made, which insured their good quality, whereas the Chinese put their goods on the market without any guaranty of their quality. The only advantage Chinese workmen had over white men was in their mode of living, and if a stamp law were passed it would be of material aid in displacing the Chinese. The witness gave as an example that Chinese shoes are frequently sold on the representation that they are made by white men, and he thought that it was only due to the public that a law should be passed for its protection against fraud of this kind. Witness said he did not handle Chinese goods except to fill an order which asked for Chinese goods, and did not like to handle such goods. He said he never stamped a pair of Chinese goods. All goods he made were stamped with his mark. Chinese goods were generally marked with a fictitious name. This, it was explained, was done by adopting the name of some foreign manufacturer. The fictitious stamp was placed on fine goods and passed for French make. The Chinese use this stamp as well as white manufacturers.

MR. HECHT asked Mr. Feder what stamp he put on his goods, but the witness declined to answer.

MR. BUCHANAN,

Next sworn, testified that he had been a foreman for fifteen years. His firm employs about two hundred hands, one hundred and fifty being white and from forty to sixty being Chinese. Ten hours constituted a day's work, and whites and Chinese associate together and work on the same work. The average white mechanic's wages was about

$15. The Chinese average about $1 per day. The Chinese were not capable of doing first class work, and witness did not know of any Chinaman who could do as good work as a white man. The Chinamen do all the poor work. Witness had no idea about the number employed in the boot and shoe industry in the city. He thought a displacement of Chinese would be detrimental to manufacturers. The Chinese are paid through one man, who is a contractor. The Chinese are employed through the contractor, who it is supposed pays them what he desires.

Mr. Clark said he had been informed that men had applied to the manufactory for employment at Chinese wages, but had been denied because it was feared if they were employed the Chinese would quit.

A member of the firm for whom Buchanan works objected to such a line of question on the ground of irrelevancy, though he assured Clark that he had been misinformed.

Buchanan said he did not think if the Chinese were discharged they could be readily replaced, though he admitted men were daily applying for positions. Within fifty days the men might be secured for a slight advance on the wages paid to Chinese.

Richard Pahle

Testified that he had been engaged in the shoe business for twenty-one years. He manufactured a few shoes for his store, but sold principally eastern goods. He thought the wholesalers were patronizing the Chinese more by buying from them than by employing them. He had more respect for manufacturers who employ Chinese than for those who buy from them secretly. He thought a stamp law would be a very great assistance to the white workmen. He thought the public would give preference to white goods if they were stamped and identified. In the last year there has been a greater demand for cheap goods, which, witness thought, showed an inroad made by the Chinese in the industry. He thought manufacturers could make as good a shoe and about as cheap with white labor as now made by Chinese, if they only tried to do so; but they all thought what seemed to be the easiest way was the best. Witness blamed the white workmen themselves for the Chinese being in the trade, as they once struck, he said, when they were getting as high as $36 per week. He thought, however, that they had more sense now. No Chinese were engaged in making leather, and they all bought leather from the white manufacturers at an advance on the price paid by white manufacturers. By bringing influence to bear on the leather manufacturers the Chinese could be placed at a very great disadvantage. Witness said there is a Chinese factory on Webb Street, which employs three hundred or four hundred Chinese, and they would not sell to retailers, but received their patronage from wholesalers. He thought if he had a large factory he could make shoes as cheaply with white as with Chinese workmen.

J. F. Broderick

Testified that half of his goods were imported from the East. Those he bought here were from the United Workingmen's factory and some others were stamped. He bought some cheap goods from Chinese, and thought that the poorer classes would not buy Chinese goods stamped as readily as they do now. If the white manufacturers would sacrifice a little of their profit and make a cheap quality of shoes with white labor he thought the Chinese could be successfully competed with. Mr. Broderick expressed a willingness to coöperate with other dealers against the Chinese.

A. Altmeyer

Testified that he had been in the shoe business twenty-eight years. He corroborated Buchanan's testimony as to the number of men employed, etc. He said his firm employed Chinese only to compete with Chinese and eastern goods. He did not think it possible to dispense with Chinese. If he discharged the Chinese he would have to discharge a number of white people also. He said the wages paid here, even to Chinese, were greater than that given to shoe-makers in Massachusetts. He did not believe any manufacturer was philanthropist enough to lose money by discharging his Chinese, and the public would not patronize white labor, and as a result the trade would be driven to the eastern market.

Mr. Feder here said that if the volume of business was great enough the manufacturers could easily compete with eastern goods.

A discussion of tariff, railroad rates, and taxation ensued. Altmeyer favored a tariff against eastern goods, heavy freights on railroads, and no taxation for manufacturers.

The investigation then returned to the original proposition, and Altmeyer said his firm had tried to dispense with Chinese several years ago, and it had cost $100,000, without any benefit. He did not think white men, even if they began work at low rates, would continue to do so, but would in time strike for exorbitant wages. Witness advocated an exclusion act as a means to freeze the Chinese out. He thought a radical change impracticable. He said Mr. Hecht and he had tried to break in apprentices, but had failed.

Mr. Hecht said that he intended to try the apprentice system again. They were to be allowed to draw but half of their wages for three years, when they would have $500. Few apprentices stayed, but many good shoe-makers were turned out. It was thought the manufacturers here could be interested in the movement if a correct system were employed.

An adjournment was then taken until Thursday night.

JANUARY 12, 1886.

Labor Commissioner Enos last night resumed his inquiry into the shoe business. The following had been subpœnaed: J. M. Wentworth; Marion Leventritt, of Rosenstock & Co.; Lewis Murr, of Kutz & Murr; J. B. Russell, Louis Kast, Jeremiah Deasy, Quong Sing, Hue Kai, Wing Wo Lung, and Wo Fat. Samuel A. Wood, of Hobart, Wood & Co., avoided a subpœna.

Among others present were Isaac Hecht, George K. Porter, Samuel Feder, Mr. Altmeyer, of Cahn, Nicklesburg & Co., and Walter Rosie, of the United Workingmen's Manufacturing Company.

LOUIS MURR

Testified that he had been seven years in the shoe business in this city, and at present was a wholesale jobber. He dealt in eastern goods, about nine tenths of his whole trade being of that class, the balance of what he handled being made here by Chinese. The Chinese goods are cheap goods, such as are not made here by white labor, and such as cannot be imported here as cheaply from the East, if the time, trouble, and expense of importing be considered. Witness had no knowledge of the amount of Chinese goods manufactured here, and did not know how many Chinese were employed. except from what he had learned through the newspapers. He thought about four fifths of the goods made here were of Chinese manufacture. The Chinese shoe-makers get, as a maximum, $30 per month, an average of $20, and the minimum is merely their living, which comparatively is nothing. Their running expenses are, he thought, cheaper than those of white men, as they worked in close and filthy quarters, and their living cost little or nothing. Witness thought there was no possibility of white men competing with Chinese in making cheap goods and he thought that, in time, the Chinese would be making the best grades of goods, as they were constantly becoming more skillful in their work. They work, said witness, as many hours per day as they are asked to. One will make as many pairs of shoes as a white man, but their work is so inferior as to leave no comparison. The difference in the goods is not apparent to the ordinary purchaser, but the Mongolian article is more loosely put together. A white man cannot do more work in ten hours than a Chinaman but it will be better. Witness said his Chinese goods were not marked, and it was not generally known to consumers that the goods were of Chinese make. He thought if the agitation were kept up, the good will of the public gained by the manufacturers, and if the Chinese were compelled to stamp the goods, it would have the effect of hurting the sales here in this city. In the country he did not know how it would operate.

WITNESS was asked for suggestions to displace the Chinese, and gave as one a law making it unlawful for Chinese to use a fictitious stamp, as was now done. The Chinese do this at the white manufacturers request. Witness thought even if that were done, the Chinese would put white men at the head of their factories. Witness said one of the large Chinese factories was run by Hue Kai & Co., who had about thirty Chinese in their employ, and had all the latest improvements in machinery. Witness thought boys and white men could be worked advantageously if there were a demand for the goods made by them. Witness did not think all the shoes used on the Pacific Coast would ever be made here, as the trade oscillated between different points. There had, he said, been a decrease in the price of goods on this coast of fifteen per cent on a shoe, while there had been an increase in the cost of machinery. Notwithstanding this, goods could be made cheaper now than formerly, owing to the advantage of machinery. Witness would approve of a stamp law with a penalty. He did not think a radical change in the business as regards the character of labor employed possible. After a time, when workmen could be brought from the East and apprentices broken in on this coast, it might be successful. If no workmen were to be brought from the East it would take at least ten years. He thought that the proper way of getting rid of the Chinese was to tell them to go and make them do so.

IRA M. WENTWORTH,

Of Oakland, the next witness, testified that he had manufactured boots and shoes in this State for twenty-one years. At present he employed between sixty and seventy hands, all of whom are white. He had employed Chinese and had continually laid them off, but found it necessary to employ them again. He said a smart white man would turn out one third more work than a Chinaman, and do work of a better quality. The Chinese can earn from $7 to $10 per week, and the white help from $12 to $22—average $15 to $18. The men are employed at least forty-eight weeks out of the year. Half of his goods, witness said, were sold in this city and the balance in the interior. He did not believe in the virtue of a stamp. If people could get a shoe for 25 cents less because a Chinaman made it they would buy it. He thought the white manufacturers ought to make goods with white labor and compete with eastern goods, or go out of the business. The proportion of boots and shoes made here by Chinese he thought to be less than one half. and that was, as had repeatedly been shown, only of the very poorest grade. The proportion of goods brought from the East he thought one half, and if plenty of live manufacturers were here, who would put money into the business and employ boys and girls, the Chinese question would be settled in two years. The hurrah about the Chinese had, he thought, injured the business in the direction of discouraging and keeping boys and girls out of the trade. The prices paid here were, in cases, 30 per cent more than that paid in the East, and witness thought first class mechanics' wages had not decreased 10 per cent. If white men would work for the wages paid now to Chinese, he did not think it would cause Chinamen to work cheaper, as, in fact, the white men made a much better shoe and more work for very little more money than the Chinese did inferior work for. As for Chinese making goods cheaper than now, witness said that were impossible, as the Mongolians were now making goods for less than cost, and were constantly going under. The Chinese, he did not think, had a deep root here, and he saw a good field for clever manufacturers. Witness said good workmen could always get work in his factory, and it was only because he could not get white men that he employed Chinese. He did not think eastern goods should be licensed here, as such a course would benefit the manufacturer and dealer without benefit to the consumer.

George K. Porter cross-questioned Mr. Wentworth, without eliciting anything of importance.

M. Leventritt,

The next witness, who is with Rosenstock & Co., testified that his firm employed exclusively white labor to the extent of seventy-five. Witness thought about half the goods used on this coast were imported. Of the goods made here he thought the Chinese made 60 per cent. He corroborated former testimony as to wages paid by Chinese and the character of the Chinese as workmen. He did not think the white manufacturers could compete with Chinese manufacturers and not employ Chinese workmen. Witness thought the stamp would be a benefit, as it would necessitate the branding of inferior goods as such, and would compel manufacturers to abandon the making of poor goods for a better class. This would cause them to send East for their cheap goods, and would leave the Chinese goods without a market. He thought some of the larger Chinese manufacturers imported some of their leather from the East.

T. C. Hannon, of the Shoe-makers' League, cross-questioned the witness, and discovered, according to the witness, that shoe-makers averaged eleven months. He then gave way to Mr. Altmeyer, who expressed the opinion that taking Chinese from the trade would be an injury to the industry on this coast by introducing more eastern competition.

The Witness did not believe this, but thought that if the Chinese were out of the business it would add to the population and create consumers, thereby creating a market.

J. M. Clark, of the Shoe-makers' League, then asked Mr. Leventritt in regard to the men employed by him. Witness declined to answer, as the question was going into his private business.

Mr. Clark said he would like to show that the firm was not employing, and had not employed, as many men as witness had said.

The Witness was then asked where he got his California ladies' shoes. He said he got 80 per cent of Chinese cheap goods, and 20 per cent of fine goods from Chinese.

In reply to a question from Mr. Porter, the witness said he thought eastern shoe drummers should be made to pay license for selling goods on this coast.

"Mr." Tuan Kai,

Who looked as innocent as though he had never seen a shoe, was sworn.

Commissioner Enos put an extra emphasis on the words, "so help your God!"

Kai, who talked good English, said he was a member of the firm of Hue, Kai & Co., who manufactured goods at 123 Clay. He employed about one hundred and sixty men. He had machinery, and employed some white men. His machinery was operated by Chinese engineers. He paid his men on an average of $1 for the lowest, and $1 75 for the highest, per day. The engineers got $1 75 per day, and the cutters, to the number of half a dozen, got $1 75. He boarded his men in addition to the above wages. He thought it cost him $10 per month to board his men. Probably it was a little less than $10, or it might be a little more.

Clark suggested that $50 per month was what it cost him to board all his men.

Witness resuming, said he worked his men ten hours per day, though at times they worked in the evening. He usually found all the work he wanted to do, though it was a little dull at present. His goods were sold to white men altogether; Chinese never bought any goods that he manufactured. About one third of what he made was sold in this city, principally to wholesalers. About sixty dozen per day was the average he turned out. Witness thought there were about two thousand Chinese shoe-makers in the city, five hundred of whom were now lying idle. He employed his Chinese direct, and paid them off individually. The Chinese were paid every two weeks. No Chinese were imported by him, and he said that importation of Chinese had never occurred to his knowledge. He stamped his goods with the name of his customers if requested to do so; if not requested to, employed no stamp. He had four white girls and six men in his factory. He employed the white men because they were superior workmen to Chinese. He paid his girls $6 and $9 per week, and employed them because Chinese women could not be secured to do the work. He bought all his material here from white men. He did not know that any Chinese manufactured leather. He paid his white men from $2 50 to $3. Witness thought some white factories could make goods as cheap as he could manufacture them. The prices he made and sold goods for, were as follows: Pebble goat (ladies'), $24 to $27; misses' and children's, $19 to $21; brogans, $21; second quality French calf, $52 50; French kid, $42 to $48; misses' French kid, $30 to $36. These were admitted to be good prices. The witness said if he did not get good prices he would not make them.

He was asked if he recognized any of his customers in the room.

He was silent. Asked whether he heard the question, he replied: "Yes, I heard it."

"Well, what is your reply?" asked Deputy Bernard.

"I said I heard it," replied the witness.

"Well, can you answer the question?" asked Mr. Clark.

"I don't believe I have any idea of answering that question," said Mr. Kai.

His questioner said he thought he had been posted, and it would do no good to question him further.

"I have been a long time in the country," said the witness, "and I don't think I need any one to post me."

The matter was dropped here, amid laughter.

It was further ascertained that the witness had no drummers on the road, but had his regular customers, who came to him. His business amounted to about $3,000 per month. He worked beginners two months on no salary. They were then paid per day.

HECHT here facetiously suggested that the witness be asked whether he could suggest anything that would tend to drive the Chinese out of the business.

He was asked how he thought the stamp act would affect his trade, and could not answer the question satisfactorily. He did not know how his customers would like it. His customers, at present, generally had put on what they thought was best.

LOUIS S. KAST,

The next witness, testified that he had been in the shoe business since 1859. Last year he purchased only $1,500 worth of Chinese goods. Nearly all the goods now carried by him were of white labor, he said.

JEREMIAH DEASY

Testified that he did not deal in Chinese goods. Over one half of the goods sold by him were of eastern make. They were of a cheap grade, and better than Chinese goods. He thought he lost nothing by handling them instead of Chinese goods. He thought the stamp law, if passed, and a rigid enforcement of the Exclusion Act, would settle the Chinese question.

J. B. RUSSELL

Testified that he had been in the business twenty-one years, and employed only white labor. Boycotting Chinese was the only remedy he could suggest.

THREE CHINESE MANUFACTURERS.

The last witnesses examined were three Chinese manufacturers. One of these, WO FAT, of 318 Battery Street, could not understand English and was excused, after he had given the information that he employed thirty men, at from $1 to $1 50 per day.

CHUNG HING, representing the firm of Kwong Sing & Co., at 417 Market Street, had been ten years in the business. He employed sixty hands, at from $30 to $45 per month, and boarded them, at a cost of $10 per month, in the factory.

FUNG WING, of Wing, Wo Lung & Co., 211 and 213 Clay Street, employs seventy men at from $20 to $40 per month with board. He estimated that there were two thousand Chinese shoe-makers in this city, and said they all belonged to the Shoe-makers' Society.

The Chinese manufacturers displayed less zeal to suppress facts about their business than some of the white men who had been examined. They thoroughly understood the question at issue.

It is said that the agitation is already having the effect of causing some of the large manufacturers to discharge Chinese and replace them with white mechanics.

The investigation was adjourned, and due notice of its resumption will be given.

JANUARY 25, 1886.

Commissioner Enos yesterday morning resumed the investigation into the shoe trade. Present as witnesses were Walter Rosie, of the United Workingmen's Coöperative Boot and Shoe Company; M. D. Nolan, of Nolan & Descalso; also, Israel Cohnrich, of Cohnrich Bros.; P. F. Nolan, of Nolan & Sons; S. Marks; Samuel R. Dolliver, of Dolliver & Bro.;

Manuel Lewis, of E. Lewis & Co.; and John Callahan and J. H. Colthurst, shoe-makers. O. A. Bernard, Deputy Commissioner, and President Clark, P. B. Gallagher, J. J. McDonald, and Michael Mullaney, of the Shoemakers' League, were also in attendance.

WALTER ROSIE.

The first witness examined was Walter Rosie. He said he was a manufacturer of boots and shoes, and Secretary of the United Workingmen's Coöperative Boot and Shoe Factory, the location of which is at Twenty-fifth and Bartlett Streets. He explained that his company was incorporated under the mining laws of the State as a stock company. There were twenty stockholders. He had been eighteen years in the manufacturing business. At present ninety white people are employed by the corporation, but generally more are at work for it. The goods manufactured are heavy boots and shoes of all kinds. The average wages paid was $16 50. The witness thought that now, as the trade was dull, a number of shoe-makers were out of employment. But in the season there was, he said, work for all shoe-makers. He thought between two thousand and three thousand Chinese were in the business, and about one thousand two hundred white men. White boys could be taught certain lines of the trade in six months, but they would not be generally useful in the business. The manufacturing system as conducted at present kept a man at the particular work he first learned. Witness did not think any change would be advisable in this method. He thought a substitution of white boys and girls for Chinese practicable in two years. If the Chinese were to be displaced through the public withdrawing its patronage from them, there would be no trouble about getting shoe-makers out here from the East. Now it was generally understood that the Chinese controlled the trade on the coast, and white shoe-makers would not come here on that account. Witness thought fully one half of the goods consumed here came from the East. He said it was impossible for white manufacturers to compete with Chinese. It was impossible for him to say how much less than whites Chinese could make goods for. Their community system of living in the factories where they worked made it possible for them to work so cheap that there was no means of calculating how cheap they could make goods. He said few of the Chinese shoe-makers wore white-made shoes, and if they were replaced with white workmen the shoes the white men would wear would alone run a good-sized factory. Mr. Rosie thought if the Shoe-makers' League issued a stamp, and it was made imperative that manufacturers should use it, there would be no trouble about boycotting Chinese goods. He thought consumers would pay a small advance on white-made goods over Chinese goods, if they knew for certain what they were buying. He thought a law providing for a stamp would work well, as nearly all white manufacturers were favorable to it.

GALLAGHER asked Mr. Rosie if he knew of an arrangement among manufacturers to keep apprentices out of the business.

THE WITNESS replied that there had been none since the Knights of St. Crispin existed. The manufacturers provided for the number of apprentices they should employ. No restrictions had since been placed on the apprentice system.

WITNESS was asked whether he had ever found difficulty in getting men to work for him, and replied in the negative. He said the supply of white laborers was always equal to the demand for them. Witness expressed the opinion that it was necessary to the welfare of the trade on this coast, and to society generally, that white workmen should take the place of Chinese in the trade.

S. MARKS,

Manufacturer of shoes at 87 Stevenson Street, testified as follows: Made a medium class of goods, employing twenty-five hands. In the past two weeks he had "changed his mind" and discharged all his Chinese—twenty in number—and supplanted them with whites. While he was employing Chinese he found them as competent for the quality of goods he made as white men, and they did as much work. The Chinese were paid as much as white men by the piece, and made $6 and $8 per week.

When asked why he had discharged his Chinese, the witness said, with a peculiar grin, that it was because of the agitation, and also because he was against paying money to men who sent it away from the channels of trade. He thought he could get along with white labor. He recommended the use of the stamp, and that a provision be made compelling all manufacturers to stamp their own goods with their own name. Some of his customers did not want their goods stamped, while others did. He was going to put boys into his factory. He could teach boys in six months to make as good a boot and shoe as the average Chinese, if the public gave the movement encouragement. He had advertised for boys and girls, and had received a large number of applicants. They had proved very apt at learning, and gave evidence of becoming in time good shoe-makers. He thought the introduction of boys into the trade the proper way to oust the Chinese from it. He did not doubt that plenty of white boys and girls could be got to learn the business. He did not believe in paying any workman less than $12 per week. When he employed Chinese they were under a contractor, and he paid the contractor all their wages, not knowing what the contractor paid them afterwards.

In answer to questions from Gallagher, witness said he was the first one to teach Chinese to make slippers. It was not long before they undersold him and drove him out of the business.

Witness had no doubt that the Chinese could be driven out in six months if the retail dealers, manufacturers, and journeymen combined in a movement against them, as the public would undoubtedly support the movement. He understood the Chinese contract system. It was carried on by a contractor providing Chinese and drawing their wages, he getting 25 cents from each for his trouble.

Deputy Bernard asked for information as to prices paid Chinese, and learned that they were paid by the dozen, and it could not be said how much was paid for each piece, as in the case of white men, who got paid for each piece of shoe made.

John A. Block,

The first apprentice in Buckingham & Hecht's factory, was the next witness. He went to work eleven years ago and bound himself for three years. His wages were: for the first six months, $15; $25 for the next, and so on, at an increase of $5 per six months, getting $40 at the end of the three years. Some of his money—he did not remember the amount—was kept back to hold, so that he got $500 when his time was up. The first nine months he worked at nailing, and from this went to trimming heels and majers. When he stopped working he did not know all of the business. There were thirty apprentices taken on, of which only twenty remained. Witness said that after the first month he made a profit for his employers, and thought the same work would have been worth $12 per week if done elsewhere. He got as high as $20 per week after his apprenticeship. He thought reasonable wages were $16 per week. Witness thought boys could be taught enough of the business to displace the Chinese in two years. He did not know the capacity of Chinese as workmen, but knew white men to do the most and best work. The employment of apprentices and an adoption of the stamp seemed to witness a practical way of getting Chinese out of the trade.

Witness had been out of employment for thirteen months, and knew that there were a great many others unable to get work. He admitted that there were a number of factories at which he had not applied. Cahn, Nickelsburg & Co. was one of the firms to which he had applied. He once worked there, but had been discharged and his work given to Chinese. Witness then got from $10 to $12 per week. He had never had any trouble with his employers, and knew of no reason why he should have been discharged. He had not asked for work at the United Workingmen's or at Nolan's.

Boys and Girls Wanted.

Commissioner Enos called attention to the letter recently published in the "Report" from the furnishing goods factory of Greenbaum & Deutsch, and he said one hundred boys and girls were desired by that firm.

Mr. Dolliver,

Dealer in leather shoe findings at 575 Market Street, the next witness, said trade was falling off on this coast. This was, to some extent, owing to eastern competition, about 50 or 60 per cent of that consumed on this coast being of eastern make. About half of his trade was to Chinese, and they also dealt somewhat in fine goods, but not nearly so much as white manufacturers. He did not think it possible to get the support of the public against the Chinese. He had little faith in the use of the stamp, but thought if it were covered by a law it might prove effective. There were, he said, a number of retail dealers who were so desirous of making money that they would not let go of their Chinese trade. If the retail dealers, manufacturers, and journeymen would stand together he thought that there was no doubt about the movement being effectual. The Pacific Coast manufacturers could not compete with eastern goods, though the Chinese put a better quality of leather in the goods which they make. About half of the Chinese manufacturers formerly in the business had closed down, owing to the agitation and eastern competition in cheap goods. Witness was especially favorable to the introduction of white boys and girls into factories in displacement of Chinese. He said there were but six finding houses in the city, and he thought if they were to try and make a combination against the Chinese they would start finding stores of their own. Witness denied that he took shoes from Chinese in payment for debts unless in the case of a failure on the part of a debtor. He knew that other dealers in findings did so, however. The Chinese were, he said, his best customers.

M. D. Nolan,

Retail dealer, was called, and testified that he manufactured no goods but custom work. He said he had paid much attention to the Chinese question and found that shoes could be made by white boys and girls at a price not greater than a bit a pair more than paid to Chinese, if not just as cheap, and by skilled workmen for about 25 cents advance on the Chinese price; that boys and girls could be taught in three months to make as good a shoe as the Chinese now make; that five thousand or more could be given employment here, and this would shut out much of the eastern trade; that boys and girls should give three months' labor for nothing, as in older countries apprentices gave four and five years' labor without wages, and he did not see why in this country they could not give three months without wages; that this would settle the Chinese in the business in a year; that nine out of ten of witness' customers expressed a willingness to pay as much as 50 cents more for white goods; that the agitation had already done a vast amount of good, and the demand for white goods was enormous and growing. He thought the stamp Act would almost accomplish the desired result, as about 90 per cent of his customers would not take a Chinese shoe out of his store if it were given to them. The passage of resolutions and signing of rolls, he said, had been tried, and it had been found that nothing would be effective unless men lost money by handling Chinese goods.

Witness showed two slippers, one of Chinese and the other of white make, the latter from Porter, Schlessinger & Co.'s factory. The difference in the price was but 50 cents per dozen, while the white-made shoe was twice as well made, and the shoe-makers present considered it worth two of the other.

The Witness said he had received communications from eastern manufacturers who desire to open cheap shoe factories here, but are frightened off by the Chinese. If they received assurance of public patronage they would open factories here, but he did not think their presence necessary, as there were plenty of men lying idle here who would be used in that way if necessary.

I. Cohnreich,

A retail dealer for ten years, the next witness, said he dealt in white and Chinese goods. He had imported eastern goods since the agitation several years ago, and found that he could get eastern goods as cheap and good as the Chinese article. He had come to the conclusion that there was no necessity for retail dealers to handle Chinese goods. If the Chinese could be worked out of the business, and eastern goods used, in time manufacturers would rise here who could make goods to compete with the eastern articles. Witness favored getting rid of the Chinese, and he thought the stamp and employment of apprentices would greatly aid in attaining it. He not only favored a combination of retail dealers, manufacturers, and journeymen, but thought the heavy jobbers and leather dealers should also come in. He thought six months would see all the Chinese out of the business if coöperation were properly conducted.

Clark asked Mr. Cohnreich how it could be possible for consumers to tell whether a shoe were white or Chinese made, with merely the firm stamp. Chinese, he suggested, could put a stamp of any firm on their work.

The Witness said this could be prevented by the law attaching a penalty to the use of illegal stamps.

P. F. Nolan

Took the stand. He stated that since it had become generally known that he was not dealing in Chinese goods and employing Chinese workmen, his trade had increased. He favored the theories put forward by the other witnesses, except as to the time necessary for teaching white boys the business. He thought boys could be taught to make a shoe as well as a Chinaman. The only reason for the employment of Chinese, he said, was because they were easy to handle and did just what they were told, while with white boys there was more or less trouble.

Senator Days asked Mr. Nolan how long it would take a boy to do cheap work. He replied that in three months one could do good work, and at the end of that time could make from $3 to $6 per week.

He was asked if the introduction of an unlimited number of boys would not affect the journeymen, and replied that this would not result, for the reason that when the supply of young workers became great enough manufacturers here could compete with eastern cheap goods.

E. Lewis,

Of No. 37 Second Street, the next witness, said for the last three years he had dealt in eastern goods to the extent of 65 per cent of what he handled, and found that they could be sold for 10 per cent less than Chinese goods. The cheap eastern goods, however, were inferior to the Chinese cheap goods. He thought the stamp would greatly assist in getting Chinese out of the trade. He once had a stamp with Hop Kee, showing that the goods manufactured were for his firm, but not showing by whom they were made. He had taken up that stamp, and now had the names of manufacturers placed upon all the goods he handled. He would willingly accept the Shoe-makers' League stamp. He agreed with the other witnesses as to the employment of apprentices and stamp, but he did not see how the eastern goods could be provided against.

Mr. Clark stated that it was the intention of the League to give dealers a guaranty card, showing that his goods were eastern made.

Senator Days asked Commissioner Enos what would prevent Chinese from taking in a white partner and representing their goods as from a white firm.

The law, it was explained, would provide for a stamp showing whether goods were made by white men or Chinese, and not who the manufacturers were.

An adjournment was here taken until to-morrow evening, at 7 o'clock.

January 26, 1886.

The investigation into the shoe trade of this city, with special reference to the Chinese, was resumed last evening at 7 o'clock, by Commissioner Enos. Among these present were: Herman Lesser, of Lesser Brothers, retailers; Mr. Moore, of Moore & Murphy, retail dealers; G. K. Porter, of Porter, Slessinger & Co.; Walter Rosie, of the United Workingmen's Boot and Shoe Manufactory; S. A. Wood, of Hobart, Wood & Co., wholesale dealers; Mr. Williams, of Williams Brothers, wholesale dealers in leather and findings; E. Atkins, retail dealer; Gilbert Pringle, manufacturer; P. F. Nolan, of Nolan & Sons; Mr. Ahern, of Flauhert & Ahern, retail dealers; E. Bernheim, of Bernheim & Co., manufacturers; J. F. Sullivan, manufacturer; President Clark, of the Shoe-makers' League; and Secretary P. B. Gallagher, of the League. The first witness called was

B. Getleson.

He testified: I am in business at 520 and 522 Market; am a dealer in leather and findings. Have been in business here twenty years in that line. Have Chinese and white customers. I sell about equal quantities to each. Five years ago there was more trade with the Chinese. During the last year the Chinese trade has decreased. The reason of that is the coming in of eastern goods, and dull times. Cannot say how many Chinese there are in the boot and shoe business here now. Altogether I suppose there are several millions invested in the shoe business here—probably $5,000,000. More boots and shoes are made by Chinese than whites. I think the best way to get rid of the Chinese would be to continue as you are now and have a stamp. If the wholesale houses would drop the Chinese we should get rid of them in a year. We can manufacture the goods here just as cheap as the Chinese can; the Chinese don't give the value. If the manufacturers would cut the same as the Chinese they could make as much money. An outsider could hardly tell the difference between a Chinese or white shoe. A stamp would be a great benefit. I think there are quite a number of boys here who could be worked into the business. More eastern goods are sold here than home-made. They are generally better than the goods made here by the Chinese. The eastern shoes are fully as cheap as Chinese in the lower grades. The eastern trade can compete with the Chinese. A Chinese cannot make as good a shoe as a white man, or as many. They are not as skillful. They do not do regular workmanship. Think white people would give more for white than Chinese shoes. White factories could make as cheap shoes as the Chinese. If all the Chinese were driven out of the trade, their places could be filled by white men in six months. Eastern shoemakers would like to come out here. In the East the white men get $15 or $18 per week. Here white men get as a maximum $20. Some get as low as $12. There are many who cannot get work. I think that by going on as you have now, and having branches in the country, the Chinese will be weakened and finally driven out. Do not see why manufacturers, wholesalers, and retail dealers should not unite. The people are waiting for it.

To Mr. Gallagher—There are five or six regular finding houses. All the stock the Chinese get is not got through these houses; wholesalers keep findings also. The Chinese could never make a combination on leather.

To the Commissioner—I don't think a combination of the finding houses could be made.

To Gallagher—A good many of the finding houses, mine included, take shoes from the Chinese for findings. All but Dolliver & Co. do that.

To Healey—I think the manufacturers should combine against the Chinese. They can make shoes without the Chinese. We cannot carry on business without the Chinese trade.

William F. Lake

Was next called, and testified: Am a shoe-maker. Been so three and a half years in Oakland. I learned a branch of it in the factories here. I am not working now. Have not worked at shoe-making, because I could not get it. A good many are in the same position, because of the Chinese. Don't know of any other reason. I. M. Wentworth's is one factory where they give the preference to the Chinese. I lost work on that account. They would work Chinamen right along, while white workingmen were laid off. When I worked I earned from $6 to $14. In Bernheim & Co.'s I earned $11 or $12; in Wentworth's $6 to $7. Think a stamp would be of great use. Don't think there would be any trouble to get white men if the Chinese were turned out. Could get them in two weeks. A boy could learn a branch of the trade in a very short time. Lasting a boy could learn, for a common shoe, in five or six months. So with most other branches.

To Healey—I worked on the same class of work as the Chinese.

To the Commissioner—I could do nearly twice as much work as a Chinese. A white man puts more work into a shoe than a Chinese. A Chinaman's shoe always shows that the man who made it did not understand his business.

GILBERT PRINGLE,

Manufacturer, testified: Have twenty men. Have been in the business twelve years. Make mostly workingmen's shoes, but we make all grades. I employ white labor only. Never employed Chinese. I think that the stamping of goods would be a good idea. That is the only way I see to benefit the white workingmen. We do not employ boys, and boys could be taught the business very easily. Have no personal knowledge as to the Chinese trade.

To GALLAGHER—Have no trouble in getting men. Never had. Yes, if retailers did not think so much of four bits a dozen there would be fewer Chinese in the business.

To THE COMMISSIONER—Can't state how many white men there are out of work. Frequently have applications for work. If the Chinese were displaced they could be replaced in six months. Even boys could be taught in that time.

To HEALEY—Much of my work comes into direct competition with Chinese goods. My goods cost 25 cents or 50 cents per dozen more than the Chinese, but will outlast three pairs of Chinese shoes. I have been successful without a stamp in competing with the Chinese; my customers prefer to buy my work at a higher price than the Chinese because it is better.

WILLIAM DUNLAP

Testified: Am a boot and shoe-maker in this city. Have been in this city ten years. Work for Pringle, of Market Street; served an apprenticeship in Canada. Understand all the branches, I think. A young man ought to learn a branch in six months, under the present factory system, and earn fair wages. If all the Chinese were displaced, think their place could be filled in six months. Many white men have been driven out by the Chinese, through preference given the latter by employers, possibly because the Chinese worked cheaper. Think the preference is the other way now, because I believe manufacturers are getting notes from the country asking for white shoes. Think if manufacturers advertised for white men they could get plenty. Where I work the men averaged their wages for last year. It was $17 a week, but they earn more there than in other factories. They have twenty hands now. But they work the year round. This is an exception to the general rule. I believe if you put Chinese and white goods into a store together inexperienced people would not be able to tell the difference. A stamp would do good. Buyers would give more for a white shoe. Think it would soon settle the Chinese business. Think a law of that kind could be enforced. Chinese generally wear imported shoes, not their own make.

To GALLAGHER—Very few stores have not Chinese goods in them. Can't say how many of them are merely commission houses for Chinese.

To THE COMMISSIONER—The eastern goods are not as good as those we make. The quality is inferior. Any $4 50 shoe here will outlast a $6 eastern shoe. The sole leather here is better, and the shoe is made stronger. The eastern leather is made with hemlock; ours with oak.

GRANVILLE DAVIS

Testified: Am a shoe-maker. Been a shoe-maker fourteen years. Learned my trade as an apprentice for three years. Understand all branches of shoe-making, not boots. Work in Oakland. My average wages in the past year were $10. Have not had all I could do. When had full work averaged $10. Shoe-makers make, I should say average, $9 a week. A great many are idle through the Chinese. If the Chinese were displaced think we could get all the white men wanted in three months. A boy could be taught in three months. Under the factory system a boy learns only one branch. There are a great many idle shoe-makers, or shoe-makers who have gone into other work, who would come forward if the Chinese went. Think a stamp law would be a great advantage. People would pay more for a white-made shoe. Have worked in Wentworth's shop eleven months with Chinese. Three Chinese are employed there now. They do about as good work as white men; but do one third less. They work by the piece at the same rate as the whites. Wentworth says that as soon as Chinamen were put out the white men would go on a strike. That is the reason the Chinese are employed, I think—to keep the white men down.

S. A. EARLE

Testified: Am a shoe manufacturer in this city at 765 Mission Street. Have been in the business five years. Manufacture shoes only. Employ fifteen white men and ten Chinamen. The earnings of the white help have been from $21 to $9 for boys. The former are the skilled mechanics. Have five boys. They have been with us from four years to one or two. Take them from sixteen to eighteen years of age. It takes an average boy about six months to get a good idea of what wants to be done. We teach them one branch. The boys we have are at work cutting or on machines. The Chinese work in the same shop at the same branches as the whites. Skilled Chinese do about two thirds as much as skilled whites. They work by the piece and average $7 or $8. They do not earn as much as the boys. Most of the white men we have work by the week. We tried once with white men only. Could not get them to work. That was five years ago. Have tried since. The white men would not stay. Business was perhaps dull, or they wanted a change. Don't know if I discharged the ten Chinese whether I could replace them with white men. Would be glad to do it if I could. Am willing to try. Think the benefit of the stamp would depend a good deal on the price. Two bits might not make much difference; sometimes a bit makes quite a difference, however. Think boys could be worked in. I am going to try.

To Gallagher—Do not remember your offering to get me white teams. About a week ago, I think, you were in there. Don't stamp all my goods "Earle & Co." Don't know whether dealers are selling my goods as white labor.

To Clark—Employ fifteen white men and boys. The fifteen men include myself and three partners. We all work. Manufactured in Oakland sixteen years ago. Employed all white men there. Didn't instruct Chinamen across the bay for Mr. Hecht. Never had anything to do with Chinamen outside of this city. Whether I would discharge Chinese for white help would depend on circumstances. Provided they did better work would be prepared to pay them more.

To the Commissioner—Am willing to employ white. Am gradually decreasing my Chinese help.

To Dunlap—We pay the Chinese less than the white men; but they do not get the same work. We pay the white men 25 per cent more than the Chinese.

S. A. Wood,

Of Hobart, Wood & Co., who has been evading the subpœna for some time, was next called. He is an old man of rather respectable appearance, but behaved while on the stand in an exceedingly bad manner. Not only did he evade and equivocate, but repeated in a sneering tone the questions put to him, answered rudely, and seemed rather proud than otherwise of the display he was making, until Commissioner Enos rebuked him severely. After that he conducted himself apparently as well as he knew how. His testimony, omitting his impertinences and attempts at evasion, was as follows: Unfortunately I am in the boot and shoe business. Have been in it forty or fifty years. Been in business in the State since 1854. Our manufacturing establishment is all around town. It is in no particular locality. Can't state how many men I employ. Could not approximate the number. Sometimes have had two hundred men. Have no idea how many men have had in my employ during the last year. Can't tell within fifty men, without running around town to see. I decline to answer whether I have as many as two hundred employed. Don't employ any directly. Perhaps employ two hundred or three hundred indirectly. Where are they? Oh, in different factories. Where are the factories? In different parts of the town. Well, there is one on Fell Street. Can't tell the number. Have a good many shoes made on Valencia Street. Don't know as I have any more factories. Don't employ any Chinese directly. Buy Chinese goods. Have made no estimate of the Chinese here. Had too much to attend too. Judge one half of the goods used here were imported. Have no suggestions to make about displacing the Chinese. Would suit my business very well to have them out. Don't think they can be got out, if you want to know. Stretching their necks is the only way, if you want to know. Don't know whether a stamp would be of any use, or whether it would not. Have not thought of it at all. Don't think white men can compete with the Chinese.

The Commissioner—You were subpœnaed to attend because you are the oldest manufacturer here; because you are a man of wealth, and were supposed to be a public-spirited citizen.

Witness (sneering)—Thank you.

The Commissioner—But as you seem to know very little about and to have taken no interest in these matters, I will excuse you.

To Gallagher—I didn't say I had a factory on Fell Street. I said I had goods made there. It is my own business whether I run a factory anywhere.

The Commissioner—Mr. Wood, if you do not want to answer a question, say so in a gentlemanly manner. I will not allow you or any one else to behave in an ungentlemanly manner in this place.

Witness then, in answer to other questions by Gallagher, either professed ignorance or declined to answer, though he admitted if he went out of business it "would probably break up half a dozen Chinese houses."

Witness was finally dismissed, and retired smiling.

Peter Sheridan.

A very bright witness, testified: I am a boot and shoe maker. I learned my trade in San Francisco here as a boy. Was about the first boy that served a regular apprenticeship here. Have been in the business here twenty-five years. I learned all the branches. Am now in the United Workingmen's factory as pattern-maker and fitter of lasts. The average earnings for the last five years in this city was $12 to $14 for practical shoe-makers. Have spent some time in teaching boys. The boys I taught were a success financially and mechanically. The system is different now to what it used to be. Under the old system of learning all the branches, I would turn a boy out to earn a living in one year. Could teach a boy now inside of six months, the machine work excepted. All the shoe-makers are not employed. Know that some cannot get employment. Cannot tell the number of Chinese employed. There are two thirds more of Chinese employed than whites now. Think can readily displace the Chinese with white boys in six months if the manufacturers would do it. They would do all the work the Chinese do as well, except treeing. That would want very strong, hardy boys. Have never labored with Chinese. Always refused to teach Chinese. The Chinese in the shops are lazy and dishonest. Have seen them sleep on their bench, and have caught them stealing. Any ordinary white man can do one third more and much better work than the Chinese. With plenty of capital and coöperation, there would be ample supply of white labor to displace the Chinese. If I were a manufacturer I should advertise for boys and select the boys I intended to start with, and put competent men to instruct the boys in each part. In six months the boys could be succeeding the Chinese. White men could also be procured from the East, if they knew the Chinese were to be displaced. There are unions opposed to teaching boys, but none in the shoe business. I think the stamp would help the mechanics in the shoe trade. If all shoes, white or Chinese, were marked as such, it would be a good law. The men in the trade would be detectives enough to see that the law was carried out. The Chinese, when they were introduced, were introduced as a whip for the white men, and they are held as such now—as a check to prevent the white men from getting better compensation. I think any ordinary shoemaker—good mechanics—should earn $3 per day. I think the manufacturers could afford to pay so much per dozen as to earn that amount by strict industry. I think piece work is the best way. The stamp certainly ought to go into the market, if only because the public are now daily defrauded by manufacturers.

To Clark—Was department foreman for Buckingham & Hecht once. Don't know how they paid their Chinamen. Believe one contractor was paid for all the Chinese. I have always held a position that commanded high wages. Buckingham & Hecht could turn out two hundred and fifty boys in a year able to displace the Chinese. At that rate I should hardly think the five or six large factories could turn out three thousand in a year. I think one thousand five hundred would be about the number, if the other factories were proportionately as good as Buckingham & Hecht.

To the Commissioner—Those boys, with the white labor that could be brought out from the East, would displace the Chinese in a year. About 75 per cent of the boys who started in under me completed their three-years' term and became efficient. I think more would now, because our boys feel the necessity of learning a trade more than they did eight or nine years ago. Think there would be no difficulty in getting from one thousand five hundred to one thousand eight hundred boys, here and on the coast. I could take and put through two hundred and fifty boys. With proper assistance I could instruct that number in one year. Would want ten men with me.

To Porter—There was a time when I thought our class of mechanics were a little arbitrary in their demands. They were earning 50 per cent more then. I have no list of the prices at that time. There was not many Chinese here then. A good many went on after that. Not many white men went away then. Don't remember that 20 or 30 per cent went away in consequence of those difficulties. That made the entry of a large number of Chinese into the trade. Could not make any boy a cutter on fine stock in six months. I would select my boys for that. Think there are plenty of smart boys who would make expert cutters in three years. Not one man in ten makes a good instructor.

To Lesser—Don't know of any Chinamen cutting in white factories. Have been told by good mechanics that there are Chinese who can cut as well as they could. Believe the Chinese are more apt with Chinese.

To Healey—So far as my experience has gone, the employment of boys has resulted in no disaster, but has been a financial and mechanical success.

M. H. Bernheim,

Manufacturer, of Oakland, with E. Bernheim & Co., testified: Employ fifty men on an average; all white help. Have two or three boys. One of them is learning the trade. Two years ago tried a number of boys. Had very poor success. Could not get them to stick to their work. The average wages for our men are $16. A stamp Act would benefit the trade and displace Chinese labor. There is now a tendency on the part of the public to buy white goods. I think all manufacturers should have their goods stamped. The apprentice system should be tried again. I know of shoe-makers out of employment.

John More,

Of Sixth Street, retailer, thought a general agreement would drive the Chinese out of the business, and that a stamp would do good. Of the goods sold on Sixth Street, 75 per cent were Chinese. People ought to be able to tell Chinese goods by the price. How can they expect a white-made shoe for $2? People would be better pleased in the end if they gave more for a white shoe.

To Gallagher—There are a great many dealers that use Chinese goods because such inferior goods are not made by white labor, here or in the East. Eight years ago the same thing came up. Einstein & Co. tried to take the place of the cheap Chinese shoe, and they turned out a better shoe than the Chinese, at $15 per dozen, and they had not as good machinery as there is now. Don't see why it could not be done now. They did not continue.

Herman Lesser,

Of Kearny Street, retailer, had found that nine tenths of the people who bought shoes—the women especially—never asked or thought whether it was Chinese or white, and would not notice a stamp. The customer who thinks he buys cheaply by buying a Chinese shoe makes a mistake. But people have been deceived so often that they put no faith in stamps. If it were known that a certain stamp was certainly genuine it would have its effect.

To Porter—I think if the Chinese shoes were displaced, white shoes could be found cheap enough to supply the demand for low-priced goods, especially when people learned the much better quality of the white shoe.

Chester Williams,

Of Williams Brothers, dealers in findings, was the last witness. He testified that Chinese manufacturing was falling off, owing to eastern competition. An eastern drummer had said to him that the Chinese and whites here are two dogs fighting for a bone, and the eastern dog comes along and carries off the bone. The eastern shoes are very sightly and seem able to compete with the Chinese shoe. As to the stamp, I think it would bring in eastern goods, and a sudden stop to the Chinese goods would hurt the tanners and deprive two thousand five hundred white men of work. I think if an Exclusion Act were enforced, the revolution would come around without any loss to anybody.

To Clark—I think the stamp would be a good idea, so far as the Chinese are concerned, but I think the dealer would import eastern goods.

To Gallagher—A great many small tanners sell leather to the Chinese and cut into our trade. If the finding houses shut down on the Chinese, they would find plenty of men to import for them. Other houses would take up the trade we had abandoned. An Exclusion Act is, in my opinion, the remedy for the Chinese question.

The next investigation was at the request of the "White Cigar-makers' Union," a corporation, into the cigar industry, its growth, and the condition of those employed in it.

The following is a copy of the report thereof, viz.:

Office of the California State Bureau of Labor Statistics,
San Francisco, October 4, 1886.

To the Officers and Members of the White Cigar-makers' Union:

Gentlemen and Sirs: I have the pleasure to address you and represent to you that, in pursuance to your request and in conformity therewith, an investigation of the cigar industry, its growth, and the condition of those employed in it, was held by me at the office of the California State Bureau of Labor Statistics, in the City and County of San Francisco.

The investigation being finally closed, I hereby make my report to you, together with the result thereof.

The investigation consisted of four lengthy sessions and a tour of inspection of that portion of San Francisco commonly known as "Chinatown."

The principal question involved in the whole matter is, Are the Chinese or the whites to control the cigar industry of San Francisco?

According to the testimony introduced, the question of the employment of Chinese labor in the manufacture of cigars was brought before the people some twelve months since, and the feeling created against the Chinese resulted in the discharge of Chinese laborers by several of the large cigar manufacturers, and the employment of white men and girls in their places, most of these white men being brought from the Eastern States specially for that purpose, under an agreement of which the following is a copy, viz.:

San Francisco, November 27, 1885.

We, the undersigned, cigar manufacturers of the City and County of San Francisco, State of California, do hereby, in good faith, pledge ourselves to employ exclusively white cigar-makers in our factories, on and after the first day of January, 1886, or as soon thereafter as they can be obtained, for a period of not less than one year, provided that they are competent workmen, and will on their part faithfully perform their duties as such—the object being to displace Chinese labor with that of white labor. The names of the unions or associations to which the workmen may belong, will not be taken into consideration. The wages per one thousand to be the same as the union prices paid in New York City.

J. W. Shaeffer & Co.
E. Goslinsky & Co.
Englebrecht, Son & Co.
Wm. Lewis & Co.
Mayrisch Bros. & Co.
Sideman, Lachman & Co.
J. S. Bowman & Co.
I. S. Rosenbaum & Co.
M. Eisner & Co.
Hahn, Levy & Co.
I. Wertheimer & Son.
Mercado, Cohen & Co.
Gabriel Cohn & Co.
Chas. Poppe.
H. Plageman & Co.
Louis Wertheimer & Co.
E. Eisenberg & Bro.
Siedenhauer, Meyerfeld & Co.
Meyer, Mish & Co.
C. C. Diez.
Blum Brothers.

UNITED STATES OF AMERICA.

State of California,
City and County of San Francisco. } ss.

I, James L. King, a Notary Public in and for said city and county, residing therein, duly commissioned and qualified, do hereby certify that on this third day of December, A. D. one thousand eight hundred and eighty-five, I carefully compared the annexed copy of agreement with the original thereof, now in the possession of J. W. Shaeffer, and that the said copy is a full, true, and correct transcript of the whole of said original agreement.

In witness whereof, I have hereunto set my hand and fixed my official seal at said City and County of San Francisco, this third day of December, A. D. 1885.

[seal.] JAMES L. KING, Notary Public.

It will be seen that according to the terms of this agreement, the cigar manufacturers who signed it pledged themselves to employ a certain number of these white men for a period of one year. About four hundred of the men came from the East and proceeded to work at manufacturing cigars, in the place of about the same number of Chinese.

According to the testimony, some of the manufacturers have failed to live up to the contract or carry out its provisions in various ways, such as running factories where Chinese are employed, and at the same time having the words "white men," in large letters, affixed to the cigar box, and on the label, in small letters, the words: "The cigars contained in this box are made by skilled labor, under the control of white men," the words "white men" being very large.

In addition to the four hundred white men before mentioned, one hundred and nine additional came of their own volition. The four hundred came by invitation, under a promise of work. About two hundred of these five hundred and nine returned, on account of non-employment by the white manufacturers pursuant to the terms of said contract.

On the other hand, these manufacturers say that the reason for the non-employment of the white men and the reëmployment of the Chinese is, that shortly after the white men came from the East they demanded an increase of from $2 to $6 on the price paid Chinese workmen, which was objected to, finally granted, but in order to save the raising of the price of cigars to retailers they (the manufacturers) were compelled to reduce the force of white men, and in the end replaced the entire force of white men with Chinese, because they could not pay the amount demanded and compete with Chinese-made cigars.

There are about four thousand cigar-makers in San Francisco, three thousand five hundred being Chinese, the balance, five hundred, being white men and girls.

The Chinese average wages per week being $6, and the whites' about $12.

It costs a white man at least $5 per week for board, while a Chinaman pays $2 per week for board and lodging.

The white man invests all his earnings in our country, while the Chinaman sends his away from this country to his own, which amounts to more than $630,000 annually in this one industry alone.

There is about three million cigars made weekly in San Francisco, and from all the testimony, I am satisfied that in the manufacture of cigars the white man works much faster than the Chinese—about 25 to 30 per cent faster. Their cigars are better made and better tasting than those made by Chinese, being made in good, clean, comfortable, and well ventilated workshops, while the greater portion of Chinese-made cigars are made in stinking, crowded, and poorly ventilated workshops and cellars, on the floors of which their cooking apparatus is fixed, and under sidewalks, among sewers, gutter-ways, water-closets, and dens of filth and stench, thereby causing the cigars so made by the Chinese to be highly insanitary.

The manner in which a Chinaman makes a cigar was described by a witness in the following language, viz.: "He rolls them out until they are shining, then bites off the head and sticks that end of the cigar in his capacious mouth and bathes it plentifully in saliva." The habit of putting saliva on cigars is a general rule and habit among the Chinese. White cigar-makers cut the end off with a knife.

According to statements of certain physicians, tobacco carries contagion with it; therefore, this custom of the Chinese in biting off the end of the cigars and then covering them with their saliva, cannot be beneficial to a white cigar-smoker who smokes a cigar made by a Chinaman in such filthy workshops and dens as before stated.

The evidence before me shows that all the white cigar-makers are as a rule, sober and industrious, and many of them have families and are not a class liable to strike.

My tour of inspection to Chinatown to ascertain the condition of, and manner of living and working, of the Chinese cigar-maker, revealed a frightful condition of affairs. I was accompanied by Messrs. Herson, Gustadt, Burke, and Kimball, from your union, and John Deegan, of the Oakland union.

The first factory visited was at 607 Dupont Street, and known as the "Colombo." This factory consists of a room twenty by twelve feet, all of which is occupied, the space being used in every conceivable way. About twenty Chinamen were working at a bench, piling up cigars, the room being well saturated with the scent of opium fumes. The room in the rear of the factory showed where some of the employés slept. This room was filthy, the bunks themselves being situated in various positions in out-of-the-way places. The two adjoining rooms contained bunks containing opium layouts, of which I found four pipes in use. The proprietors told me that they found it more convenient to keep their workmen furnished in this manner to satisfy the opium habit, because if they did not, the cigar-makers would have recourse to the "pipe" at some more inconvenient place, thus losing time. The stench from the kitchen and water-closet was very strong, but the opium fumes in the factory overcame it. The proprietor of the factory gives the cigar-makers from 50 cents to $1 per hundred for making cigars. The men make about one thousand cigars a week. These men board with the proprietor, and pay him $2 per week for board. He makes about one hundred thousand cigars annually, all of which he disposes of to white men.

The next factory visited was the Sin Wing Lee, 618 Dupont Street. This is a most miserable den, even worse than the Colombo. The floors had been transformed into four, and in rooms ten by fifteen feet the manufacturing was being done in its different stages. The cigar-makers were in a room by themselves, of which there were about twenty. Access to this room was made by climbing a ladder, which is gained with much danger, the same being steep and rickety. The men receive the same pay as the Colombo men; but the proprietor denied that he boarded the men, although appearances indicate that he does board them.

The next factory visited was a basement in 828 Washington Street, and consists of three rooms, in one of which I found several cases of cigars packed and ready for delivery. In the second room, or office and sleeping apartment combined, I found an old Chinaman in his bunk smoking opium. In the next room, which is ten by fifteen feet and eight feet high, there were three cigar-makers at work, but there are places provided for thirty-five men. There is no ventilation in this room except the door. There is no light save a lamp at the bench of each workman. I was compelled to use matches to make the necessary light in this place for inspection.

The next factory visited was the "Novarro," at No. 827 Washington Street. In a small room, lighted by a barred window, I found six Chinamen at work. In this room I found a number of lamps, which tend to show that Chinamen who work in the daytime down town for white men, work in this room in the nighttime. The Chinamen who work in this factory live on from ten to thirty cents a day each. This place has the same gloomy appearance as the others; likewise the same stench and filth.

The next factory visited was the "Grande," at 732 Washington Street, in a brick basement full of dampness, and the atmosphere is very unwholesome. Five Chinamen were engaged in making cigars in this dirty hole, and behind the counter there were two Chinamen smoking the usual opium pipe. The cigar-makers receive the same pay as is paid in the other factories, and the proprietor sells his cigars to white men for $14 per thousand.

The next factory visited was the "A. Parloye & Co.," at 730 Washington Street. This is a well lighted and airy place, also roomy. I found thirty-four Chinese cigar-makers at work. The firm had on hand a stock of over one hundred thousand cigars. The Chinaman in charge of this factory stated to me that a good Chinese cigar-maker can make from two hundred to two hundred and fifty cigars a day, and that some cannot make over fifty a day. They receive 60 cents per hundred, which makes the highest earnings in one day $1 50, and the lowest 30 cents. At the time of my visit, the factory found it difficult to dispose of its goods. The proprietor said he would like to employ white men to make cigars, but it would cost too much.

The fear of arrest prevents the Chinese cigar factory men from using white labels illegally.

In some of the Chinese factories the filthiness of the Chinese cigar-makers, as testified to at the oral investigations, was fully sustained.

I also saw the Chinese cigar-makers bite off the cigar ends and use their saliva to make the tobacco adhere better.

All the facts testified to at the oral investigations concerning the habits and filth of the Chinese and their workshops have been substantially confirmed by this inspection. There can be no wonder that the most anxious and intense feeling prevails among the white cigar-makers, as well as all other white laborers, against the Chinese, who are unlike our people in all features, habits, and character; a class who are not even qualified for the rights and duties of our citizens, having no interest nor care for our name, homes, laws, or people.

They came to our country without wives, family, or children to support, no schools to sustain, no social rank to maintain, no character to assert, and not even a government to defend.

Observation and experience teaches us to shrink from the idea of subjecting our countrymen—with families to educate, clothe, and supply, with a position and standing in society to maintain, with a government to support and defend—to competition for subsistence and existence with such Chinese labor.

This is the class of people and labor now placed in competition with all classes of white labor.

With their numerical strength yet in China, and in readiness at all times to come to our shores, together with their natural disposition, these Chinese are enabled to supplant our own people in all trades and departments of labor, and invade the American interests and society itself with their cheap labor.

And when their desires and labors are complete, their cash and even their bones, after death, are sent to their native land.

The places occupied by the Chinese in our city as well as other cities, lose all utility and value, except for their own purposes, and from these infected spots and places our people recede as from a contagious disease or nuisance, and, on every side, property decreases in value or loses it entirely.

In conclusion, I will say that it is impossible for the white cigar-makers to compete with the Chinese cigar-makers who live and work as they do, as shown by this investigation.

The remedy for this state of things, according to my views, is that all cigars made should have stamped upon the box in which they are contained, the class of labor used in the manufacture of the cigars, thereby giving notice thereof to the public generally, who should, for the sake of humanity, for the protection of our white laborers and country, patronize such dealers as sell cigars stamped showing that white labor alone was used in their manufacture.

Respectfully yours, etc.,

JOHN SUMMERFIELD ENOS,
Commissioner of the Bureau of Labor Statistics of California.

CIGAR INDUSTRY REPORT SUPPLEMENT.

The following table has been furnished by Internal Revenue Collector Ellis, showing the production of cigars and cigarettes of San Francisco for the fiscal year ending June 30, 1886:

Quarters.	No. of Cigars Manufactured.	No. of Cigarettes Manufactured.
Ending September 30, 1885	37,155,870	1,268,040
Ending December 31, 1885	38,432,480	1,775,240
Ending March 31, 1886	34,001,650	1,446,460
Ending June 30, 1886	35,931,450	1,300,160
Fiscal year ending June 30, 1886	145,521,450	5,789,900

This table affords some data for estimating the proportion between population and the consumption of cigars. San Francisco supplies California, Oregon, Washington, Nevada, Utah, Idaho, Montana, Arizona, and New Mexico; it sends some cigars to Colorado, Louisiana, and Texas.

Eastern States cigars imported	40,270,000
Foreign cigars imported	9,000,000
Home cigars production	145,521,450
Total	194,791,450

CHAPTER X.

ADDRESSES

Delivered at the Third Annual Session of the National Convention of Chiefs and Commissioners of the Various Bureaus of Statistics of Labor in the United States, held at Boston, Massachusetts, June 29, June 30, and July 1, 1885.

THE INFLUENCE OF INVENTIONS UPON CIVILIZATION.

[Paper by Mr. Chauncey Smith.]

In Westminster Abbey, that place where England honors her great men with burial, and records their names and achievements, there stands a monument bearing this inscription from the pen of Lord Brougham, who esteemed it one of the greatest honors of his life that he was called upon to record the nation's appreciation of the man in whose honor the monument was erected:

> "Not to perpetuate a name
> Which must endure while the peaceful arts flourish,
> But to show
> That mankind have learned to honor those
> Who best deserve their gratitude,
> The King,
> His Ministers, and many of the Nobles
> And Commoners of the Realm,
> Raised this monument to
> James Watt,
> Who, directing the force of an original Genius
> Early exercised in Philosophic research,
> To the improvement of
> The steam engine,
> Enlarged the Resources of his Country,.
> Increased the Power of Man,
> And rose to an eminent place
> Among the most illustrious followers of science
> And the real Benefactors of the World."

The world has always paid homage to its distinguished warriors, statesmen, orators, poets, philanthropists, artists, historians, travelers, and to all who have left the impress of their works upon the history of mankind.

It is not until recently, however, that inventors have received a large share of these honors. As a class, they hardly had an existence till within a hundred years. Within that time they have risen to the highest place among those who, in the language of the eulogy I have just quoted, best deserve the gratitude of mankind, and by their works they have made greater changes in the face of society, and in the relations of civilized man to the physical world than all the warriors and statesmen who have flourished since the commencement of the Christian era.

I am not unmindful, in making this statement, of the great changes that followed the introduction of the Christian religion, or the advent of Mohammed and the rise of his religion, of the consequences which followed the establishment of great empires like that of Charlemagne, or of the results of geographical discovery, as in the discovery of America or of the passage to India.

I am well aware of the difficulty of comparing the magnitude or importance of such things, for instance, as the art of printing, the steam engine, or the railway, or telegraph, with a new form of religion or the establishment or overthrow of an empire, or the introduction of new forms of government. One man may attach much higher importance to some of these things that another would do, and a very much higher importance to them at one period of his life than at another.

It may seem absurd to some persons to make any comparison, for instance, between the benefits flowing from the introduction of Sabbath schools and those which have followed the invention of friction matches; between the results due to the invention of spectacles and the consequences which followed the reformation. And yet it is easy to see that each of these things must have had an important influence upon the physical, social, and moral condition of men, upon their habits of thought and of living, and upon their comfort and happiness. There is, therefore, some just relation between the value of these things to men, and it will not be unprofitable to spend a little time in considering how much we owe to inventors for what we have and what we are.

It is my purpose this evening to briefly bring into view, if I can, the service which inventors have rendered the world, and the part which inventions play in the moral and social condition of man. I shall point out in some cases the extreme simplicity of the inventions, in others the wonderful results which have flowed from them.

I shall refer not merely to what are called great inventions, but to some which seem to be very small. I shall very likely speak of nothing with which you are not all more or less familiar, but I may possibly suggest reflections which are interesting but which seldom come to our minds, for the very reason that we are so familiar with the things to which they relate, and I think that I may be able to show that there are no other men to whom the world is so much indebted as to its inventors, no others who so well merit its honors and deserve its gratitude.

We do not often stop to think how little man has or enjoys, that is not the fruit of invention. Things which man has long had we have ceased to think of as inventions, and we are apt to apply that term only to modern things—to things the origin of which we know. Yet it will be hard for us to name anything which we use or enjoy which is not an invention, or the subject of an invention, in its adaptation to our use.

The air we breathe and the water we drink are provided by nature. But we drink but very little water except from a cup or vessel of some kind, which is a human invention. Even if we drink from the shell of a gourd, we are using a thing which, in the shape we use it, is a human contrivance, and the contrivances which man has devised for obtaining water and distributing it, have been among the most wonderful and ingenious of any which have occupied the human mind. Bountifully as nature has provided water and placed it within the reach of man, yet we do in fact get or use but little of it except by the aid of inventions.

The air surrounds us at all times and we cannot help using it if we would; but if we want it either hotter or colder than we find it, we must resort to some invention to gratify our want. If we want it to blow upon us when it is still, we must set it in motion by some contrivance, and fans among other things have been invented for that purpose. A large amount of human ingenuity has been expended upon devices for moving air when we want it moved, upon fans, blowers, and ventilators.

How small a part of our food do we take as animals do, in the form provided by nature, and how very large a share in some form contrived by man! We drink infusions of tea or coffee without thinking that the compounds are human inventions. How large a place the milk of the cow has in the food of man, but how little of it could he have but for a multitude of contrivances! We think of butter as we do of milk, that it is a production of nature; and so it is, but its separation from milk is an invention which has been followed by a host of inventions to effect the separation easier or better.

Sugar is a production of nature, but little known a few hundred years ago. Separated from the plants in which it is formed, it is an invention of man. The savage who first crushed some kernels of wheat between two stones, and separated the mealy interior from the outer skin, invented flour, and the human mind has not yet ceased to be exercised on the subject of its improvement.

Probably the earliest inventions of man had reference to the procuring and preparing of food, and the ingenuity of man is exercised even now upon it more eagerly than ever before, and the power of man to produce food has been increased during the last fifty years more than it has been for a thousand years before.

Fifty years ago, a large part of the wheat and other grain raised in this country was cut, a handful at a time, with a sickle, and a man could not, as a rule, reap more than a quarter of an acre a day. An instrument called a cradle was beginning to come into use, and with that a man could reap about two acres.

Within fifty years inventors have given the world the reaping machine, with which a man and two horses will cut from fifteen to twenty acres a day.

Fifty years ago the grain was almost wholly threshed from the straw by pounding it upon a floor with a flail. If I remember correctly, a man sometimes received one bushel in ten for threshing, and from ten to twenty bushels must have been a day's work.

Now a machine will thresh out hundreds of bushels in a day, at an expense of a very few cents a bushel.

Inventions have changed the meaning of words. When I was a boy a reaper was a man who reaped grain with a sickle, and a thresher was one who threshed it with a flail. Now reapers and threshers are machines driven by steam or horse power.

For what part of our daily bread are we not indebted to inventions? Some of the fruits of the earth we eat as nature gives them to us; but how much, even, of them do we take directly from the tree or shrub or plant which produced it, and eat without the aid of invention?

All our animal food comes within our reach and is prepared for use only by the aid of inventions.

Hooks and nets and spears give us all we have of fish. The fish-hook is a very simple contrivance. Is it a great invention or a small one? If the fish-hooks should all be suddenly destroyed, together with the ability to make them, would not the loss of the invention be a greater calamity than any which has befallen the world for a thousand years. If so, were not the inventors of that instrument, and those who have improved it, real benefactors to the world?

Could we get along without needles? Could we give up pins without a sigh? Are knives and forks and spoons a necessity? They are all among the simplest things that man makes, yet he has not obtained them without a great deal of mental labor; without the exercise of powers of invention of a high order.

It is less than fifty years since the little articles called matches have come into use. They are now so common and so cheap that we use them almost as we do air and water, without thinking at all of their real value. How few there are of us who do not use them every day, and many times a day, and how inconvenient it would be not to have them! But when I was a boy nobody had them; nobody could have them, for they did not exist. In the country houses, at least, the greatest care was exercised not to let the fire go out upon the hearth, because in such case it became necessary to send to a neighbor's, often at a distance, for a fresh brand. Every night the live coals upon the hearth were carefully buried in the ashes to preserve them alive for the morning. In spite of this precaution the fire was often lost. I have been sent many a time, in such cases, to a neighbor's, in a cold morning, to get a burning brand to start the fire at home anew. Nobody now thinks of taking any pains to preserve a fire, for it is easier to start a new one with a match than to preserve an old one. A very common way of lighting a candle in the house when darkness came on was to take, with the tongs, a coal from the fire—wood fires were then used—and blow it, applying the wick of the candle to it at the same time. Sometimes it could be lighted very readily, but oftentimes it could be done only by the exercise of a good deal of skill and patience. A great deal of vexation and trial of nerves and temper has been saved to the world by the invention of matches, and the comforts of our homes increased in many ways. Perhaps, therefore, the comparison I suggested between friction matches and Sunday schools is not so incongruous after all.

There were some devices known in those days for obtaining a light or fire artificially, but they were inconvenient, somewhat expensive, and not in general use. The tinder box was one of them.

A gentleman not much older than myself told me not long since that when he was in college one of his classmates was rich in the possession of a tinder box by means of which he could strike a light and a fire in case of emergency, and he gave me a humorous account of the process of striking a light, involving considerable skill, much patience, and, as he said, some swearing.

A great many boys have been taught in Sabbath schools not to swear, but a great many more have doubtless, by the use of friction matches, escaped numerous occasions and temptations to swear, and wives have no doubt by this invention been saved from innumerable scoldings for not covering up the fire properly at night.

There is one curious fact about matches which I do not remember to have seen mentioned. We speak of them as a recent invention, but they are only an improvement upon a very old invention. Travelers among savages have generally, if not universally, found that they possessed the art of procuring fire when they wished, by rubbing two pieces of wood together till the heat generated by the friction between them caused one of them to take fire. It is described as a pretty crude way of working, calling for considerable skill and some labor and patience. Perhaps the date of the invention may go back to the earliest use of fire by man. Yet the invention itself is essentially that which we practice when we strike a match. We rub the match upon another substance and the heat generated by the friction between the two causes the match to take fire. The improvement which civilized man has made upon the invention of his savage ancestor is to coat the end of a piece of wood with a little composition of matter which takes fire at a lower temperature than the wood itself, and burns more rapidly. Simple as the improvement is, it took the world a long time to get it, and its inventor made a most important contribution to the comforts of man.

I was forcibly impressed a few years ago with the value to the uncivilized man of the simplest inventions of the civilized man, as I watched an Indian at Lake Superior at work upon a birch bark canoe. He had for tools only a knife, a hammer, and an awl, but I suppose he must have used a hatchet to procure the wood and bark of which the canoe was built. It was slow work even with these tools, and it was difficult to believe that he could have built the vessel with the blunt instruments with which his ancestors had to be content before they came into contact with the white man. What an acquisition the white man's fish-hook must have been to the Indian!

Fifty years ago a large part of the people of this country had no other resource for artificial light than the tallow candle. I remember it, and the vexations attending its use, the difficulty of lighting it by a coal of fire, the constant snuffing it required to make its light tolerable, and its constant tendency to melt and besmear everything in its vicinity. I venture to say that any of you would consider it an intolerable hardship to be compelled to use it and nothing else. Those who used oil lamps got a little better light, but not much less discomfort. Gas was used only in the large cities. But the inventors have been busy in providing a new material for illumination and the means for using it and in cheapening their production; and now in kerosene, and in kerosene lamps, both of which have been called into existence within thirty years, the poorest people can enjoy, at the most trifling expense, a light better far than anything which anybody could command at any price before the invention of gas less than a hundred years ago.

Can we estimate the comforts of the homes of the country due to these inventions? Can we estimate the greater value of the evening hours for work, or study, or reading, which these inventions have given them?

I remember that my mother had a vial of what she called rock oil, which she thought very good for sprains or bruises. It was said to have come from Western New York. I now suppose it to have been petroleum. Petroleum has been known to man for a long time, but it had no value till it came under the hands of the inventor. He has made a worthless article a blessing. Invention marks every step of its history. Petroleum in this country lies deep in the earth. By the aid of recent inventions man reaches it. By their aid he stores it, for it is a dangerous and difficult article to keep and transport. By invention, man has changed its character. And now, not only this country, but the whole world is lighted by this new material. Yet all the invention which has been bestowed upon it would have been wasted, but for another class of inventors and another line of inventions. The lamps had to be invented or improved, and hundreds of men have been engaged on their improvement for years.

And now inventors have entered a new field and given us a light for our homes and streets almost as brilliant as that from the sun itself, from that agent which, since the world began, has lighted up the sky in angry flashes only to alarm timid and superstitious man.

It is a curious and interesting exercise to take any common article of daily use and inquire how much invention has been involved in its production; what inventions have preceded it; what ones, if any, it has supplanted, and what ones it gave birth to; what consequences followed its introduction, and what part it plays in the welfare of man.

The inquiry soon becomes a bewildering one.

Take paper, for instance. I believe we are indebted to the Chinese for its invention. Do we ever think of it as one of the great inventions of man? Why, it is nothing but rags ground up in water to a pulp, spread out in a thin sheet and dried. I think the art of making paper has been known in Europe less than a thousand years. It has taken the place of parchment for writing. It made the art of printing possible. It made the newspaper possible, and especially the daily paper. The multiplication of pictures by engraving could not be carried on without it, nor the modern art of photography, to which I shall refer again. We attach great value to a system of general education as one of the most important agencies of modern civilization. But the first requisite of such a system is cheap books, and for these, paper is the only thing we could use. Would any of you undertake to enumerate within the next half hour all the uses to which paper is put? Would you undertake to name and describe all the kinds that are used?

Paper is largely made of rags. Rags presuppose the existence of cloth. Cloth is the product of two distinct inventions, spinning and weaving. Spinning and weaving are very old inventions, but even in their simplest form they involve the use of still older inventions. Whatever material is used for paper, a long line of antecedent inventions is involved in its use.

Paper must, I think, rank as one of the great inventions of man, and if the heathen Chinese had given the world nothing more than this, he would have made no small contribution to the progress of civilization.

I have said that paper is made from rags, and that cloth implies the arts of spinning and weaving. But it also implies much more. To me, one of the greatest marvels of human industry is a yard of cotton cloth at the price at which it is sold. The price of a yard of cotton cloth of the kind called print cloth, and which when printed becomes calico, is less than four cents, and the cotton itself costs half this sum. What inventions are involved in the raising of the cotton, and its transportation to the mill where it is to be converted into cloth! Of course we all think of the cotton gin, because that invention was made with special reference to the production of cotton, and has been much referred to as a striking example of the results which flow from an invention.

But the gin comes into use only after the cotton is grown. Of course the common agricultural inventions are used in raising cotton; the plow, the hoe, the machinery by which the plow is made, the arts of making iron and steel, including the machinery employed, the harness for the horse or mule which draws the plow, and the art of tanning the leather of which the harness is made. Recently, planting or drilling machines for planting the seed have come into use, and artificial fertilizers—the product of the chemist's art—and the mechanism for distributing it over the ground. Even after the plant has begun to grow, and before it is ripe, invention must often be called into play to protect it from the ravages of insects, and not a few devices, mechanical or chemical, have been called into existence for this purpose.

The ripe cotton balls are still picked by hand, though inventors are busy with the problem of picking it by machinery. It is gathered into baskets or bags, themselves inventions, to be transported by a cart, another invention, to the gin house, still another invention, where it comes under the operation of the gin to separate the cotton from the cotton seed.

Would you like to know what the cotton gin has done towards making cotton cheap; towards enabling enough to be sold for two cents to make a yard of cloth? An acre of ground is expected to produce at least one bale of cotton, which weighs four hundred pounds or over. Before the cotton gin was invented a man could pick about four pounds and a half of cotton from the seed in a day. So that it took a man about ninety days to separate the cotton which he could raise on an acre, from the seed.

Whitney invented the cotton gin, and with it a man could separate seventy pounds. In other words, he could do the work in six days which before took him ninety days. The invention was made less than a hundred years ago, but inventors have been busy with it ever since, improving it year by year, and now it turns out four thousand pounds a day. In other words, a single machine will do the work of about a thousand men.

As soon as the cotton is through the gin it must be pressed into bales, for the cotton is a light, bulky article which cannot be transported without confinement and a great reduction of bulk. So another invention is required, the cotton press. Some of these presses are wonderful machines. They embrace a steam engine, a force pump, and a hydraulic or hydrostatic press, and give a pressure of four thousand pounds to the square inch.

The cotton bale is surrounded by a coarse cloth, called gunny cloth, itself the product of another line of inventions, including the arts of spinning and weaving, and made by special machinery. The bale must also be hooped with iron hoops, involving again the inventions pertaining to the manufacture of iron, but in addition the machinery for rolling it into thin and narrow strips, and I think this embraces the art of rolling iron into round bars and drawing it into wire.

These hoops must at last be fastened around the bales, and that has called for the invention of peculiar fastenings, called cotton bale ties.

At length, through all these inventions, we have the cotton ready for market and transportation to the factory, where it is made into cloth.

This demands the use, not only of the cart or wagon, an old but important invention, but the railroad, the car, and the locomotive or the steamship, or perhaps both of them. It is bewildering to think of the inventions involved in these, and I could not even enumerate them in the time I have, if I knew them all.

When the cotton reaches the factory, an invention stands ready to unload it from the cars and deposit it where it is to be used. The iron bands are removed by some instrument invented for the purpose, and the cotton is released from its confinement. It is submitted to machinery to free it from dirt and restore it to something of its original light, flocculent character, and it then enters a machine which spreads it out into a long sheet like cotton batting. This sheet in turn is stretched out into a long, soft rope, called a roving. Successive machines, four or five in number, I believe, extend the roving and make it smaller, till it is smaller than a common pencil. It then goes on to a spinning frame and is twisted into a thread ready for weaving. Our two cents' worth of cotton has been drawn out into a fine thread more than seven thousand yards long, each inch of which has more than forty twists in it.

Shall I stop to tell you what man has achieved in the art of spinning? The art, as you know, is a very old one. Its invention lies back of the records of history. It was practiced a long time in its primitive form as a mere manual operation. The wool, or flax, or cotton was carried on a distaff. The thread was drawn out and twisted by means of a spindle held in the left hand, by which it was set to whirling while the fibers were drawn out of the mass and guided by the fingers of the right hand. The art was practiced in this crude way for ages, and it is so practiced now in some countries.

A book which describes this process says it was an obvious improvement to set the spindle in a frame and set it whirling by a band passed round it, and around a large wheel which was in revolution. But it was not so obvious that anybody, through long years, thought of it till about three hundred and fifty years ago. I believe this improvement which constituted the common spinning wheel was invented in Germany. A woman could spin with it much faster than in the old way, but she only kept one spindle employed. A little more than a hundred years ago the spinning frame was invented in England, in which a number of spindles were set and kept in operation at the same time. At first only eight spindles were used, but now several hundred are used in one frame.

There were three leading inventors at this early date who each made important improvement in spinning—Hargreaves, Arkwright, and Crompton. With a common wheel a woman can draw out a thread about four miles long in a day. On a modern spinning frame she can take care of eight hundred or more spindles and spin threads the aggregate length of which would be more than two thousand miles.

On these machines cotton yarn has been spun so fine that one pound of cotton would make a thread three hundred and thirty-five miles long, and as a feat threads have been spun so fine that a pound of cotton would reach nearly five thousand miles.

To go back to our two cents' worth of cotton which has been converted into yarn. It is subjected to the action of several machines before it reaches the loom where it is converted into cloth. Weaving, like spinning, is old, and some sort of machinery has always been employed in the process, but the power loom of our factories is a modern invention. I sometimes think it is the most wonderful machine used. To make one yard of cloth, a shuttle carrying the filling thread is thrown across the web perhaps fifteen hundred times at the rate of a hundred crossings a minute.

There are looms which weave cloth more than three yards wide. There may be nearly ten thousand warp threads in cloth of this width, and five thousand filling threads in a yard carried across the web at the rate of nearly a hundred throws a minute.

The art of printing has always been recognized as one of the great inventions of man. It is over four hundred years old, but after its first introduction very little improvement was made until the present century. Since then it has presented a rapid succession of the highest efforts of mechanical genius. I shall not attempt to follow their history or describe their character; but it is interesting to know that they have been made almost wholly by English or American inventors, and that more has been done in this country than in England. The wonder of modern printing is that it can be done so cheaply. You have all seen the series of publications by the Harpers called the Franklin Square Library. I bought a copy for ten cents, the regular price. It contained thirty-six printed pages. I had the curiosity to estimate the number of words on a page, and calculated it roughly at two thousand. That would give for the whole book seventy-two thousand words, all for ten cents. Can you form a conception of the number of inventions which has made such an achievement possible? I think a modern daily newspaper is, however, one of the greatest wonders of the age.

I buy a morning paper, the "Boston Herald," for instance, for two cents. I read it on my way to Boston in the horse-cars and abandon it at the end of the trip, not because it is worthless, but because I have obtained from it what I wanted and it will not pay to preserve it for any other person or for future use. Now, what do I buy for my two cents? The physical thing that I buy is a sheet of paper and a certain amount of printer's ink impressed upon the surface of the paper in shape of letters and words. It is a wonderful fact that man can spread out the fibers of various vegetable substances into a thin, uniform sheet like that of paper, that he can cover such sheet with signs which can be made to express every passion or emotion of the human heart, every conception of the mind, and every fact in nature! Scarcely less wonderful than the fact that he can do it at all is the fact that he can make such a sheet of the size of the "Boston Herald" for two cents. It would take a volume to record all the inventions which have been made relating to the manufacture of paper alone to make such a result possible, and another for the inventions relating to printing. But the inventions relating to paper and printing would not of themselves enable "Boston Heralds" to be printed. The "Herald" is not made and sold for the paper and ink of which it consists, but primarily for the news it contains of what has taken place only the day before all over the world. You will find in the "Herald," as you know, or any other morning paper, day after day, the news of what took place the day before, not in Boston or vicinity alone, or even in Massachusetts or New England, or in this country, but in Europe, Asia, and Africa as well.

Through the potency of modern inventions you may, perhaps to-morrow morning, shudder over the horrors of a railway accident taking place at this moment thousands of miles away. Not till within a short time, and only through the works of the inventor, did a railway accident become possible.

You may, perhaps, read that a palace of the Emperor of Russia has been blown down with dynamite. Will you stop to think that dynamite is a new invention, or that the telegraph which brings the news was unknown fifty years ago?

The paper may tell you that Mr. Edison has perfected his electric light, and is at this moment illuminating many cities, and you will speculate upon the effect that the announcement will have upon gas stocks, but will it occur to you that neither gas stocks nor gas was known a hundred years ago, and that till within less than half that period man had but little more control of electricity than he has now of earthquakes?

Now, consider for a moment how this facility for transmitting intelligence must affect society in one of its most important aspects. A great calamity falls upon some distant city or community. If the news of it reached us, as it would have done a century ago, only after the lapse of days, or weeks, or months, and if friendly help can be given only after the lapse of a similar period, we may be touched with pity, but there will arise but little sense of sympathy, or generosity, or duty.

But when the intelligence reaches us almost at the moment of the occurrence of the event, and we are conscious that it lies in our power to help, the sympathies of thousands are awakened, their generous impulses are touched, and they recognize a moral obligation to bestow needed help, beause it can be made immediately available. The duty springs from the ability and the ability is the fruit of invention. It may seem a strange assertion to many persons, but I believe it can be shown to be true, that the development of the moral nature of man has been as directly dependent upon invention as has his physical comfort.

The relation between astronomical and mathematical investigations and navigation has been long recognized, but this relation is dependent upon the observation of the apparent position of the heavenly bodies at given times, and these observations are in turn dependent upon telescopes and upon clocks and chronometers, both modern inventions. The working of the railroads of the country is hardly less dependent upon the timekeepers we possess than navigation is upon chronometers. Let any one ask himself how the railroads of this country could be operated if our only timekeepers were sun-dials, hour-glasses, and the clepsydras of the ancients, and he will soon see that the construction of the time-tables of our railroads and the operation of the roads in conformity with them would be impossible.

Mr. Atkinson will tell us what it costs to transport a barrel of flour upon our railroads from Minneapolis to Boston, and approximately what the saving is by the railroads over the old modes of transportation, but can he tell us what part of that saving is to be credited to the clocks at the railroad stations and to the watches which the conductors carry in their pockets?

The late Judge Curtis said to me several years ago that the introduction of railroads had made a great change in the habits of the people as to punctuality in keeping appointments; that before their introduction nobody thought of being punctual to a minute, or even to an hour. Nobody thought of being "on time" till the railroads presented the alternative of being so or of "getting left."

One can now easily see that before the general use of clocks and watches, punctuality, as it is now understood among business men, could hardly have been reckoned as a duty. This is one illustration out of many more important ones where our social or moral obligations have arisen from or have been changed by physical inventions. By observations upon the laws or conditions of health, by means of recent inventions and only possible by their means, we have learned how to counteract or prevent the introduction or spread of many diseases, and in consequence of this men recognize the duty to adopt and enforce many regulations in society for which no reason could be found a few years ago.

How could we live without glass? It enters so largely into the list of things we consider absolutely necessary, to say nothing of its uses for convenience or luxury, that we should almost as soon think of living without light or heat, without air or water, as to live without this cheap substance made principally out of the sand under our feet. Can any one tell what civilization would be without it? It would certainly be a very different thing from what it is.

We talk of the fireside and the influence it has upon families and social life, but the window plays a more important part in our homes than the fireside. The invention of glass goes back to a very early period, but its general use for windows is comparatively recent. Accustomed as we are to glass windows, it is difficult for us to conceive how a house could be lived in with comfort without it.

There is another use of glass, resting upon a very simple invention, which plays a very important part in the comfort of man and the value of his labor, and which contributes wonderfully to our knowledge of nature and the universe.

Ever since man was capable of observing things around him, he must often have seen that a straight stick thrust obliquely into the water appeared to be bent at its surface. But it was a long time before man learned the value of this fact; but at length the lens was discovered. The invention consisted simply in the form given to a piece of glass; in giving to one or both of the surfaces of a disk of glass a curved form. This we know forms a lens, and a lens has become one of the most valuable devices known to man, but it was a long time after its invention before it became of much value.

A thousand years elapsed after the invention of the lens before it assumed an important place among the instruments employed by man. But man learned its value at last. Lenses may be made of other materials than glass, but for all practical purposes they are made of glass, and no other material will supply its place.

I alluded to spectacles as a valuable invention. I have never seen any attempt to estimate its value. I do not know that I ever heard the inquiry made. And yet when we remember that nearly every person above the age of forty-five, and very many below that age, use glasses, we see that they must enter largely into the sum of our comforts. How many persons would be deprived of the pleasures and benefits of reading and writing during a large portion of their lives but for this simple invention. How many kinds of labor would be performed badly and with great discomfort but for these devices. At what disadvantage literary labor would be carried on without them! For how many delicate handicrafts would men and women become unfitted in their later years but for them! At what discomfort and inconvenience would domestic needlework be performed in their absence. How much trial of the patience is saved by their use. I doubt not our tempers are much better in old age for these helps.

But the value of the invention of the lens is not limited to its use for spectacles. From it has grown up those wonderful modern instruments, the telescope and microscope. Through the former has come a large part of our astronomical knowledge, which has a great commercial value from the security it gives to man in navigating the oceans. It has also a high moral and mental value from the field it opens to the exercise and training of the powers of observation and imagination; from the new conceptions it has given us of the immensity of creation and of the power which gave it birth. I wonder if any man can rise from a contemplation of the facts, the mysteries and magnitudes of the universe, revealed to us by the telescope and spectroscope, without repeating to himself, with a new sense of its significance, the question, "What is man that Thou art mindful of him, or the son of man that Thou visitest him?"

But while the lens thus opens up to man in the boundless regions of space a universe which no stretch of the imagination could give him a glimpse of without it, it opens up to him, also, a no less wonderful universe in regions which, by reason of their littleness, lie equally beyond his powers of observation or the powers of his imagination.

It reveals to him the presence of life in forms as wonderful for their minuteness and activity and numbers as the sun and stars are for the mighty spaces they occupy and traverse.

This little device, then, of a piece of glass formed with curved surfaces, which a boy may fashion upon a piece of sandstone, not only enters into the daily use of man, ministering to his comfort and prolonging his power to work efficiently, but in no figurative sense it enables him to behold a new heaven and a new earth. It opens to him the most wonderful secrets of nature, and gives him new conceptions of the vastness of the universe and of the magnitude of the forces involved in its mechanism. The ancients believed that the sun was only a few miles away, a few thousand miles at most, but the telescope has enabled man to learn that the sun is ninety-two million of miles away from us; that the earth, eight thousand miles in diameter, in his yearly journey around it, travels six hundred million miles at the rate of nearly twenty miles a second.

What conception of infinite power could the imagination, unaided, give to man, which could in the least approach that which is involved in this movement of the earth!

But we know through the telescope that this power, mighty as it is, is but an infinitesimal part of that which is actually displayed in the regions of space which only within recent years, and by the aid of a multitude of inventions, have been opened to the observation of man.

Upon glass and the lens man is dependent for the use of another recent invention, which now, that we have it, we would not willingly do without.

A beautiful art has come into existence since I was a young man, which gratifies one of the strongest desires of the heart and ministers to the social pleasures of every family and circle of friends. I well remember when the newspaper first announced that a Frenchman had invented a way of taking pictures by the help of the sun. Before that time very few people could have likenesses of their friends, living or dead. The face of a friend could only be seen when he was present. When absent, memory must do what it could to preserve the features. Only the rich, and not a large proportion of them, could command portraits of themselves or friends. Into what houses will you now go where you do not expect to find likenesses of whole families and whole circles of friends? Very poor indeed are those who cannot and do not find the means of procuring and preserving pictures of those they love. Can any one measure the amount of gratification which the world has received from the practice of the wonderful art of taking pictures from nature, through the agency of a few chemicals spread upon a sheet of paper or of silver, and of the rays of light concentrated by means of a lens? There has been received from it mental, artistic, and moral culture. The invention has opened up a new field of investigation and research to the labor of the chemist and to the student of nature. From the first announcement to the world, to the present hour, a host of inventors have been engaged in perfecting and improving the art, enlarging the field of its applications, and studying the laws of nature upon which it rests. The boundaries of human knowledge in more than one department of physics have been greatly extended in these efforts. Astronomy has received important aid from it, and by its help we get not merely pictures of what exists in the heavenly regions, but records of what is there taking place.

This art has even come to play an important part in the administration of justice and in the protection of the community against crime. By its aid criminals are detected, watched, and convicted. Forgeries are proved or disproved by its use. It finds an important place in the ordinary business of commerce and the mechanic arts. By its aid, copies or representations of all valuable works of art are placed within the reach of multitudes who, otherwise, would know nothing of them or know them only through inadequate verbal description. The improvement of the public taste in relation to art by the knowledge of works of art which has been thus diffused, has been very great.

Does any one doubt that this extension and this spread of knowledge of the works of art must tend to the improvement of man's moral nature? Can it be doubted that the social affections are quickened by the preservation of the features of friends and the interchange among friends and families of pictures of those who make up the family circle? Will not a boy absent from home, feel the influence of home more strongly when he looks upon the faces of parents or sisters, than he would if he could not thus bring them into his presence?

But all these benefits which the world reaps from photography have come to us from inventions. It is not the fruit so much of genius, as of that patient labor and research which is winning from nature, day by day, secrets far more valuable to man than all her hidden treasures of gold and silver.

Within the memory of men not very old, a new power has, by the genius of inventors, been trained into the service of man. This power is electricity. It has always, as we now know, been present in many of the phenomena of nature, exhibiting itself most strikingly in the lightnings of the thunder storm, revealing, as man believed, the presence of a mysterious power which might be destructive, but which never could be useful to man.

A trifling incident revealed to an observing man in Italy, the fact that when two metals and the leg of a frog were made to touch, the muscles of the leg were contracted. This was a little more than a hundred years ago. This led to the invention of the galvanic battery, an instrument by which man was enabled to generate electricity for his own use. But many years were still to elapse before man could turn the instrument to much service.

Forty years later, another observer noticed that when a wire which was carrying a current of electricity generated by a battery was placed near the needle of a compass it turned the needle one way or the other on its pivot. A few years later, Faraday discovered that if such a wire was wound around a piece of soft iron, it made a magnet of the iron. Out of these simple facts have arisen the inventions of the telegraph, the telephone, and the electric light. The oldest of these inventions, the telegraph, is only about forty-five years old, and there are many who can easily remember the feelings of incredulity and amazement with which the claim that the invention had been made was received.

Can any one calculate the influence which this invention is destined to have upon the condition of man? We think it has spread over the world with wonderful rapidity. And so it has. But the world has just begun to use it. Although we see telegraph lines spread all over this country, and we say and think that everybody uses the telegraph, yet the number of messages sent last year did not much exceed one to each two persons in the land, while the number of letters written, including postal cards, probably exceeded ten to each individual. When messages can be sent, as they most certainly will be, to any part of the land for ten cents or less, multitudes of people who never think now of using the telegraph except upon matters of pressing importance, will use it upon the most common occasions. How many times would the simple "all well" be exchanged daily between friends if it could be done for five or ten cents!

A multitude of inventors have been necessary to make the telegraph what it is, and its improvement was never going on more rapidly than to-day. I well remember how difficult it was for many persons to form an idea, when the telegraph was first invented, of the way it worked. It was not an uncommon belief that the paper on which the message was written was in some way sent along the wire to its destination. But the idea became familiar after a little time that the electricity only traversed the line and operated a mechanism at the distant place which recorded the message in a new language, or delivered it directly to the ear, and people began to think that they understood how the telegraph was worked. But when inventors began to talk about sending two or three messages over the same wire, at the same time, the limit of belief seemed to have been reached, and people obstinately refused to believe that the thing could be done. But it has been done in more ways than one, and now there are numerous wires in the country over which four or even six messages are sent at the same time. As these inventions enable one wire to do the work of two or four or more, the wires which are wanting are called by the telegraph people "phantom wires." The improvement of the telegraph is taking other directions. On the common lines the messages are sent by the operator at the rate of about thirty or forty words a minute. But inventions are in progress, and are now being introduced, which will enable a thousand words a minute to be sent. Think of sending messages from Boston to New York over one wire, and recording them there, at the rate of a thousand words a minute! Few people speak at the rate of two hundred words a minute.

Those of us who are in the habit of receiving messages, often get them printed on long strips of paper. The invention used in sending messages in that way is one which enables a man in New York, by touching keys like those of a piano, to operate a printing machine in Boston or Chicago.

The highest achievement in telegraphy is undoubtedly reached in the ocean telegraph. It demanded a whole line of inventions peculiar to itself. A simple wire could not be used for a conductor. It would give out the electricity to the water so fast that none would reach the farther end to deliver the message, and the wire itself would be speedily destroyed. A coating must, therefore, be found for it which would at once protect the wire from the action of the water and keep the electricity from going off into the water. When such a coating had been invented, it was found necessary to strengthen the copper wire used for the conductor by the addition of steel wires, which must not touch the copper wire, but surround it, and this too must be protected by a coating. Then machinery had to be invented to combine the copper and steel wires with the coating material into a cable. Other machinery had to be invented to deliver the cable from a ship as she sailed over the course where the cable was to be laid. Only the steamship could be used for the purpose, and thus the invention of the steam engine gave to man the power to establish ocean telegraphs. New instruments of the most wonderful sensibility had to be invented both for sending and receiving the messages. A minute magnet carries a tiny mirror and is suspended by a thread so as to yield to the slightest impulse. A ray of light from a lamp falls upon this mirror and is reflected upon a screen some feet distant. This ray of light is the finger which the operator watches upon the screen. As the current in the wire varies under the action of the sending instrument, the magnet turns one way or the other, and the spot of light on the screen moves one way or the other and indicates the signals of the Morse alphabet to the operator and enables him to spell out the words.

Sometimes a fault is developed in the wire as it lies on the bottom of the ocean and signals cannot be sent. Does it seem possible that man can tell whereabouts on three thousand miles of wire, two miles under water, the fault is? He has invented instruments which enable him to do it, and to send a vessel to the very spot over the wire where the fault is, pick up the wire and mend it and return it to its resting place.

Some time before his death, in 1819, while resting from labor in his old age, James Watt, when asked to allow his fellow citizens to honor him with a seat in Parliament, refused, saying that he had given employment to the better part of a million of men and had earned the right to rest from work. To how many millions of men since then has his invention given employment? In a life of Watt published many years since, I find a statement that the steam power of the world was equal to that of four hundred million of men, and this amount has probably been doubled since the statement was made. And yet the world has even now but just begun to reap the fruits of this invention. Each year witnesses the extension of its use.

About seventy years ago Robert Fulton, one of the greatest mechanical geniuses of this country, applied the steam engine to a boat and made the first trial of a ship moved by the power of heat in a trip from New York to Albany. Now every ocean is plowed by the steamship, and there is hardly a navigable river on the face of the globe that has not become a highway for it. A few years later, in 1825, George Stephenson invented the locomotive and gave to man the railroad, and now, sixty years later, we have one hundred and twelve thousand miles of railroad in this country alone.

I believe that no other Englishman has done so much for his fellowmen, so much to change the social and economical conditions of society, as George Stephenson.

Would you like to know how much the steam engine has increased the power of man in Massachusetts? I can tell you what the locomotive has done. In 1878 the railroad companies of this State had one thousand and thirty locomotives. The proportion due to the amount of their track in this State was seven hundred and fifty-seven, and the work they did was equal to what nine hundred and thirteen thousand five hundred and forty-five horses could do on good common roads, and was equivalent to the labor of five million four hundred and eighty-one thousand two hundred and seventy laboring men, or to that of a population of nearly twenty million.

Now, in 1875, Massachusetts had only about one hundred and thirty thousand horses, and her population was a little more than a million and a half.

But this was not all that Massachusetts owed to the steam engine. She employs it largely in steam vessels owned in the State or coming from abroad. What the whole amount of work done by these vessels was equal to I do not know, but it was large.

She also employed steam and water power in her manufactures equal to that of one million nine hundred and twelve thousand four hundred and eighty-eight men. The work done by the steam and water power was equal to what could have been done by hand power by a population of seven million four hundred thousand.

I think there are more than twenty thousand locomotives in the United States. There would be more than that if all the roads were as well provided with locomotives as the roads in Massachusetts are.

Assuming that to be the number, and that they do as much work as they do here, and the work is equal to that of twenty-five million horses, or to that of nearly one hundred and fifty millions of men, or to a population of nearly five hundred million. I suppose the actual population of the United States is nearly sixty million. We see by this how much in this country alone the inventions of Watt and Stephenson have increased the powers of man. The imagination staggers under the figures.

Of course a host of other inventors have been concerned with the results I have given, but the results are none the less the work of inventors because there are many of them.

The steam engine has entered into many other inventions, the steam drill and the steam dredge, for instance, which have given to man the ability to execute engineering works of the most extraordinary character.

The steam hammer is another of the wonders of modern machinery which followed the steam engine. One of the gods of ancient mythology was Vulcan, a blacksmith, who was supposed, I believe, to have forged the thunderbolts of Jupiter. What conception may have been entertained of his power or of the magnitude of thunderbolts, I cannot say, but probably he was never supposed to wield a hammer like a modern steam hammer, weighing thirty-five tons, through a distance of ten or twelve feet, or to have executed any work like the forging of the propeller shaft of a modern steamship. But what ancient gods could not do, the modern inventor easily does.

The power of the steam engine comes from heat; from the fire in the boiler. The fuel used is largely coal, stored ages ago in the earth. Fire has been long known to man and has been ready to do his work, and the iron and steel for engines had been long known. But not till the magic of the inventor had brought these things together, did man learn what power was lying ready to his hand.

A few years after Watt invented the steam engine, and while he was laboring to improve it and adapt it to the various wants of the world, a wonderful military genius arose in Europe, who filled the world with his fame and made himself as large a place in history, perhaps, as man ever did. He played havoc with the nations of Europe, changed the boundaries of countries and their forms of government, and apparently raised France to the highest pitch of power. But he lived only to destroy. Measuring Bonaparte and Watt by their works, and their works by the consequences which followed them, and which must stand as the greater fact in the history of the world? Which controlled most potently for his own time and for the future, the destiny of nations, and which most deserves the admiration and homage, not to say gratitude, of mankind?

I hear people not infrequently express the belief that man will soon exhaust the field of invention. The inventions of the last century have been so numerous and wonderful that to many minds it seems most likely that man will soon reach the limit of his power, or that he will exhaust the resources of nature. But there is little reason to fear that either condition can be reached for ages, if ever. It is as little likely that man will ever reach the limit of invention, as it is that he will be able to fix the bounds of the universe. Man makes inventions by combining the materials and forces of nature, so as to reach new results. Let any one consider how numerous are the materials which nature presents to the observation and use of man, how varied in kind and degree are the forces which are in constant operation, and how multifarious and intricate are the laws which govern their actions and relations, and then calculate, if he can, the number of possible combinations which can be made. I have seen the statement, which is no doubt true, that the fifteen blocks in the gem puzzle can be arranged in more than a million different ways. If this simple toy possesses such capabilities, what possibility is there that man can ever exhaust the field of nature? Wonderful as man's inventions are in number and character, they are at an infinite distance behind the works of nature. What a multitude of created things there are in nature, looking simply at species and varieties, and not at the individuals! How many kinds of plants and animals are to be found! What multitudes of reptiles and insects! No machine which man has invented calls into play such wonderful forces or is governed by such wonderful laws as the humblest plant on which he treads! Man is far enough yet from inventing a structure which shall build itself up from the earth, air, and water, and scatter germs for its indefinite reduplication! He has succeeded in copying some of the products of nature, and he will achieve still greater results, but in doing it he has but opened a new field of invention, one which only a few years before seemed utterly beyond his reach. He has enlarged the field of invention, not exhausted it. A striking instance of what man has done in this new direction is exhibited in the substance called alizarine. It is the substance which gives to madder its coloring quality. Not many years ago, madder was extensively cultivated in many countries to supply the demand for the arts. Now the article is made artificially from coal tar, and the fields where madder was cultivated have to be devoted to other purposes. Invention has taught man how to make indigo, and the artificial article is likely to supplant the natural product. Diamonds have been produced artificially. I have full faith that sugar will in time in like manner be produced artificially. Starch and oil may not unlikely be provided in the same way. Man now cultivates the silkworm which devours mulberry leaves and converts a large portion into a glutinous fluid which, when spun out into a fine thread, hardens and forms our silk. Man may yet learn how to extract silk directly from the leaves, and perhaps even produce the substance which the worm elaborates, and spin it into silk.

Since the telephone has shown that man, through the agency of electricity, can talk with his fellowman, hundreds of miles away, there are men daring enough to think that through the same agency man may yet see things at an equally great distance, so that you may not only talk from Boston to your friend in New York, but may actually see him as if face to face, and they claim that their attempts have been attended with some degree of success. Would you dare to say that it was more unlikely that such a result may be achieved than that man should be able to transmit intelligence instantly three thousand miles through the depths of the ocean? Through long ages man remained unconscious of the presence and action of the forces of magnetism and electricity, but we now know that they are constantly present everywhere and incessantly active. What other forces may still be hidden from the observation of man it is impossible to know.

The present scientific belief is that the atmosphere is an aggregation of infinitely small molecules, which really fill but a small part of the space the air seems to occupy; that through the unoccupied space these molecules are rushing at a high speed, hitting each other and the solid bodies around them and rebounding, and that what we call the pressure of the atmosphere, fifteen pounds to the inch, is really the bombardment of these molecules upon whatever arrests their course. The reason that all solid things are not swept away by this incessant pounding, is that the blows are struck in every direction, and so neutralize each other. But here is an ever present and ever active force, and if man should ever discover a way to make all the particles of a body of air move in one direction, he would have at every place on the surface of the earth an unlimited amount of power placed at his command.

But even if man should accomplish all this, there would still be an infinite distance between anything which he could devise or construct, and the organic structures which grow up around him; between the forces which he could wield and those exhibited in the operations of nature; and each step which he might take, while it would enlarge his knowledge, would at the same time bring him into the presence of new mysteries, and open up to him new problems for solution. Each new invention gives birth to a host of other new ones.

The steam engine has been the study of inventors for a hundred years, and each year has witnessed improvements upon it, and such improvements are going on more rapidly than ever before.

About forty years have elapsed since Howe gave the sewing machine to the world, and thousands of inventions for its improvement or adaptation to new uses have been made, and they are going on still. The same is true of reaping machines, spinning machines, looms, the manufacture of iron and steel, printing, and telegraphy, and of almost everything used by man.

There is no sign that the work of the inventor is near its end, and those who believe, as I do, that he has been the chief agent in the progress of the world, have no reason to doubt that the world will be still more deeply indebted to him as the centuries go by.

There are now in force in this country more than two hundred and fifty thousand patents for inventions, the fruits to a very large extent of the mental labor of those who are called the laboring men of the country. Aside from the direct value of these inventions in promoting the comfort and increasing the wealth of the country, there is another factor to be considered, having the most vital relation to the industries of the country and its powers of production. This great number of inventions implies a high degree of intelligence and great mental activity in the great body of the people. It indicates trained habits of observation and trained powers of applying the knowledge which has been acquired. It shows an ability to turn to account the forces of nature and train them to the service of man, such as has been possessed by the laborers of no other country. It suggests as pertinent and most important the inquiry whether any other country is so well equipped for competition in production as our own; whether in any other country the laboring man is as efficient and his labor therefore as cheap as in our own; whether he does not exhibit the seeming paradox of receiving more for his labor than in any other country, and at the same time doing more for what he receives—giving more for what he receives and receiving more for what he gives.

THE STATISTICS OF CONSUMPTION.

[Paper by Mr. Edward Atkinson.]

Gentlemen: It is my purpose to invite your attention to a short treatise on the importance of the statistics of consumption. Our information is becoming very adequate in the matter of production and distribution, but what we do with our abundance is as yet but little known. Let me say a few words in introduction. There is one *a priori* conception which I accept for my own guidance in matters relating either to political, social, or physical science, and from which I am prepared to reason deductively. If an apparent rule, law of nature, or prime motive of human action, is presented to me which appears to control, or which has controlled, the doings of men from the dawn of history to the present day, I deduce the theory that it must have a beneficent rather than a malignant purpose, end, or object. That is to say, the pessimist philosophy cannot, in my judgment, possess any foundation in truth. I do not care to disprove, and do not care to have any one else attempt to disprove, a theory, however logical in its form, which is based upon an apparent maleficent law of nature, whether material or immaterial; such a law, like the so called laws of population or of diminishing returns from land, would condemn the body of man to hunger, famine, and pestilence as a matter of necessity rather than a matter of his own choice. It is necessary to my conception of a power which makes for righteousness to supplement that spiritual conception with the idea of material welfare being ultimately within the grasp of man, because the spiritual and the material are but two phases of manifestations of the same life.

It is useless for economists to discuss the old clerical dogmas of the fall of man and the consequent curse of labor. We know that the modern conditions of life have been evolved from those of prehistoric ages; and therefore the myths of the past must no longer keep science and religion apart. To that end, nothing is more needful, in the branch of science in which we are all interested, than to place before our minds a clear conception of the methods by which social progress has been, and will be, evolved. In this view of the matter we must conceive of the effort or labor by means of which subsistence is gained as a method of progress, and not as a punishment for sin. The garden of Eden may be symbolic of the future, if not of the past, when mankind may have earned leisure through the application of intelligence and effort.

We may use both the deductive and the inductive methods, but we may not trust wholly to either; and, unless we can read the prophecy of the future which is written between the columns of our figures or our collation of facts as to the past, our work is truly dry as dust.

Now, there is a permanent custom, rule, or law which has controlled, and which now controls, the doings of men, in what we call the production and distribution of wealth, which law is commonly assumed to be distinctly selfish, *i. e.*, selfish in the maleficent significance of that word, and this rule of law is what we know under the title or name of competition. In connection with this view of competition, we are warned that the love of money is the root of all evil; that there is greater moral danger in wealth than in poverty, and that the world, the flesh, and the devil are synonymous terms. To the ecclesiastical mind, the methods of business are usually deemed broad ways in which one man seeks to get the advantage of his neighbor, and hence they lead to destruction. Now, these are all such partial truths that they have the effect of very gross errors; and I cannot but think that they are among the causes of the great separation which exists between what is commonly called religion and life; hence the basis of our economic gospel is a profoundly moral one, which will some time remove the false notions of the necessary business of life which cause this separation to exist.

The distribution of wealth or of products has always been worked in part, if not wholly, by the way of competition, from the earliest to the latest date. This is not so apparent in the period before the change from status to contract as it has been since. Ever since, however, the distribution of wealth or product has been governed by contract or agreement, the prime force in all commerce or exchange has been competition. In these latter days, competition is condemned by many tender-hearted and right-minded persons because they see its hardships and do not see its benefits. They allege that it grinds the faces of the poor; that it makes the rich richer at the expense of the poor, and that it works in other ways toward privation and poverty rather than towards prosperity and progress. But this is a very shallow conception of the true function of competition, and when its method is explored to the bottom I think it will prove that in the end competition is the most effective mode of coöperation among men, and that it tends directly toward making a good subsistence common to all persons of ordinary intelligence, industry, and health. Its end is therefore beneficent. It will not remove all poverty, because there is, and always will be, a little poverty, due to misfortune or to want of mental and bodily vigor. Such poverty is, however, but the smallest part of that which now exists, and for its relief charity will always suffice. Competition will abate all poverty that is not irremediable, because it stimulates intelligence, and ignorance is the chief cause of poverty.

All commerce being now conducted by competitive methods, we must ask ourselves the elementary question: What is commerce?

It is an exchange of service for service, or of product for product. Each person parts with what he can best spare, and which some one else wants, and each one obtains in exchange something which he needs and which some one else can afford to part with. Each serves the other. Each thinks that he gains by the transaction, and in the long run each one does gain. There can be no permanent commerce or exchange of services, unless it satisfies both parties and is beneficial to both, whether it be between individual men or between nations.

I have said that all commerce is conducted by way of competition, and I assert this even with respect to the so called coöperative system, which has been so successfully applied to distribution in England. (The coöperative factories in Great Britain are nothing but corporations managed in the competitive way, but mainly owned by factory operatives.) In order to prove this, it must be remembered that there is competition in buying as much as in selling, and the coöperative shopkeepers are combined and compete with other dealers in the very act of hiring the ablest men to buy their goods under the sharpest application of the competitive idea. Very high salaries are paid for this service and none understand better the common axiom of trade than the managers of the coöperative shops: that "goods well bought are already half sold." These shops also compete with the common dealers, and in some cases drive them out of the business of distribution. How do they do it? By refusing to grant credits and by requiring every buyer to carry his own parcels away from the shop.* These are most subtle and useful methods of competition, beneficial alike to the shopkeeper and to the customer. Unless the coöperators adopted such methods of competition even the Rochdale pioneers, who founded the whole system, would themselves have failed. Why does not coöperation succeed in this country in the distribution of product? is a question often asked. The reason is very plain. The shopkeepers of this country early learned and applied a competitive principle to the distribution of articles which are not quickly perishable, which is as yet but little comprehended in England in respect to retail traffic, namely, large sales at small profits and large dealings only with cash customers. The margin of profit with which our great shopkeepers are satisfied, and on which they grow rich, is so small that there is little left for the coöperative shop to work upon. In this department competition having already done the work of coöperation in reducing the cost of distribution, and, having proved itself to be a synonymous term, there is nothing left for coöperation to accomplish in the distribution of many of the staple articles of commerce. There is, however, yet great room for improvement in the distribution of perishable articles and in the small traffic. It is the small shops which cost the most for their support. The charge for the distribution of meat, milk, fruit, green vegetables, and the like, is the heaviest. The baker is a high priced man even if he does not grow rich himself. How to abate excessive tolls on small traffic is of paramount interest and importance. It is written: "To him that hath shall be given, and from him that hath not shall be taken even that which he hath." That is a hard saying, yet it is a profoundly true one, even to the economist. Let us interpolate a little. To him who hath (gumption) shall be given (opportunity), and from him who hath not (gumption) shall be taken, even (a large share) of that which he hath, namely, of his small products, because his service is of little worth to others. No man can exchange services with another who is incapable of conferring a service himself. The rule of material success in life is never to do anything yourself which you can more easily get done for you by some one else. The employer who can use other men's hands or wits cannot spare his own time or brain for such work, and, conversely, the man who desires to be employed will find the exact measure of his wages to be the exact measure of the service which he is capable of rendering. This is just as true of borrowing and lending. The borrower must find out not only who has capital to lend, but also whether he himself is capable of using it without losing it. There is vastly more capital awaiting use than there is capacity to make use of it at this very moment. That is just what's the matter. To him that hath capital which he has earned himself, whether in his head or in his pocket, shall be given all the capital he can use, and from him that hath no capital, either in head or hands, shall be taken even that which he hath in his pocket, if his father has left him a bit and he has not been put under the care of a trustee.

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*I have been informed, since this address was given, that the coöperative shops have of late been compelled to adopt a delivery of parcels.

One very great advantage in the increase of capital in ratio to the possible use which can be made of it, and the consequent diminishing share of product which capital can secure, will consist in the lessening proportion of those who will be able to live without working themselves, either with brain or hand.

Witness the tremendous revolution which is now in progress in Great Britain. The mere possession of land devoted to agriculture, entirely aside from city property, is computed to have yielded £60,000,000—nearly $300,000,000—a year rent. To the extent of the purchasing power of this sum families have been enabled to live without work, except they worked from choice. This system has been continued and sustained by custom and statute in respect to land tenure, until, according to Arthur Arnold, four fifths of the land of Great Britain is nominally possessed by less than seven thousand owners; and of this four fifths the greater portion is held only in life tenancy subject to entails and settlements, so that those who nominally possess it can make no profitable use of it. This rent is now becoming impossible simply by the beneficent working of competition. The competition of our farmers, our railways, and of the English steamships has given the masses of the people of England cheap bread, and the seven thousand landlords can no longer exact rent in any great measure by power of mere possession. Yet it is not by their dispossession that a remedy can be found even for their own misfortunes. The need is that the land shall be repossessed, free of incumbrances, so that it can be put to use by its present nominal owners or by others to whom they may sell it when freed from incumbrance, while to these present owners will come the beneficent necessity of working themselves on their land or off it in order to subsist. Without possession, there can be no abundant production from land.

Free competition, both in the possession and use of land and its products, has had full play for the longest period over the area of the Northern States of this Union where slavery did not exist to any extent. Let us judge it by its fruits. What has it accomplished, especially in New England?

1. It has resulted in the largest aggregate production in ratio to the number of persons employed that has ever been realized in any country.

2. It has reduced the ratio which interest, rent, or profit bear to the total product to a less proportion of such product than is to be found in any other country.

3. It has established the highest rates of wages by working such a distribution of the joint product of capital and labor, that the more effective both become, the larger becomes the share of the laborer in the constantly increasing product.

4. It has assured a good subsistence to lower and lower grades of labor while diminishing the hours and the intensity of the work.

5. It has diminished the proportion which the great fortunes bear to the total accumulated wealth. It has increased the relative number of persons possessing moderate wealth. It has vastly increased the number who possess small savings.

6. It has greatly increased the number of lucrative occupations which are open to women or to men who are not of full vigor.

7. It has rendered the saving or accumulation of a considerable property less necessary to assure a comfortable subsistence.

8. It has reduced the number of hours of work necessary to be devoted to procuring subsistence.

If we accept the misnomer of "the poor" as a generic term for all who do not yet possess property, the poor, as a class, are becoming richer by way of competition, while the rich, who have already become possessors of property, may become no poorer, but are more numerous. In other words, competition is the force which tends to equalize the distribution of the annual product, while steadily increasing the product of each decade, as compared to the previous one.

I do not present these propositions to you with any intention of attempting to prove them at this time. I submit them dogmatically as being capable of proof. Perhaps they cannot all be proved, except by your own work. One of the most important parts of your work may be in this very direction. I think you cannot have failed to observe how very few grades of labor there are, and how evenly, on the whole, a certain share of the annual product is even now divided in each grade. For instance, in New England, where capital is most ample and effective, the mechanism of exchange most complete, and where specially skilled labor has concentrated in greatest measure, there are certain broad divisions, and in each division the earnings are very uniform. In the lowest plane or grade, the earnings of common laborers do not vary greatly. In the next grade above, the earnings of factory operatives and domestic servants, and of women in many other arts, are nearly alike, if the cost of boarding the servant be added to the wages. In the next above come the skilled mechanics, railway and telegraph employés, and with them may be classed a great body of clerks, salesmen and women, and a large portion of teachers. In the next may be found a greater proportion of persons of moderate means and income than can be found elsewhere. And, finally, although there is a great deal of wealth, yet in my judgment, the wealth of those who are distinctly rich bears a much less proportion to the wealth of the whole community than it does anywhere else. In the State of Massachusetts nearly every other person—man, woman, or child—is represented by name on the books of some savings bank, and the aggregate of their deposits is about $275,000,000. Where has competition been more free than in New England, so far as its own people are concerned? And yet my own computations, which were examined, verified, and sustained by Commissioner Wright, and which were made on the basis of his most excellent census of Massachusetts of 1875, proved that the whole capital of the State could not possibly exceed in value three years' production. I therefore present to you one of the most difficult and yet one of the questions most requiring an answer. What proportion of each year's product is or can be saved and added to capital? You will observe that this is a very different and much more complex problem than the question of what is the income of capital, because the income of capital is largely consumed. The capitalist who receives it is in many cases a mere distributer. Let us assume the cases of two men, each of whom receives $10,000 a year from the earnings of the same railroad or factory. One spends or consumes it in the support of a large family and of many servants and dependents. The other spends or consumes $5,000 and invests $5,000 in a new form of capital—a new mill or a new railroad—and it is only this last sum which is added to the aggregate capital of the State in which these two men live. Suppose this joint income of $20,000 had represented a dividend of 5 per cent upon a factory worth $400,000, then the $5,000 saved would be only 1¼ per cent added to the productive capital in this or some other factory. All my investigations have led me to believe that the actual addition to capital is very small. I do not believe 5 per cent of our annual product for the last one hundred years can now be found in existence as capital or even as realized wealth. It would be a matter of the utmost interest if this point could be worked out. The average population for the one hundred years has been somewhat over twenty million, which would be the same as two billion for one year. If each person saved $1, or if each worker who supports two others saved $3, the wealth which this saving represented would be $2,000,000,000. Assume that each person has saved $12, or that each worker has represented a saving of $36 per year, then the aggregate of wealth, aside from land, would be $24,000,000,000 in 1880. I don't think as great a sum could be found, and the greater part of what there is has been saved in recent years. If $12 per head per year be an approximate estimate of the total savings which have been maintained, what ratio does that bear to the cost of subsistence? Can we solve this problem? Are my computations approximately accurate when I assign as the average value of our present annual product per person what would sell for $200, if all were sold at current retail prices, including what is consumed on farms? Is 10 per cent, as against 5 or 6 per cent, formerly, of such $200—or $20—now annually added to wealth or capital? It would be over $1,000,000,000 this year. If 10 per cent of the product of the year has been saved or set aside for the maintenance or increase of capital, how much must we take off from the apparent gain to represent the actual depreciation of the capital previously saved? After all repairs have been made that are possible, mills, works, warehouses, and dwellings depreciate; the inventor destroys the accumulation of years; there is nothing constant but change; there is no fixed capital in an absolute sense, and all life is but a conversion of forces. Stability is death. How much can we set aside for reproductive purposes? How much of this will be even moderately permanent? What proportion of the useful things now in existence are more than one generation old? What material work of man is permanent except the opening of the ways. Is the addition to capital more than sufficient to maintain an increasing production? Did the few in whose hands capital and wealth slowly accumulated in the first fifty years of our existence secure more, even for a short time, than $5 to $10 per head? Do the many in whose hands capital and wealth are now being accumulated secure, even for a short term, more than $15 to $20 per head? Would not future production decrease if any less than is saved were saved and added to capital? These questions are vital; they lie at the very foundation of all the issues to which your time and skill are devoted. Now, if both production and savings are so limited, wherein can greater progress be made, and how can greater welfare be assured? May it not be in a more intelligent use of what we do produce rather than in striving to increase it so fast, small as it may be when considered in ratio to our numbers? Our great fault is a waste of force. We waste in two directions: first, in respect to what is commonly called fixed capital. I will only treat the waste by fire. We burn about one dollar's worth in each hundred of each year's annual product, and we spend more than half a dollar more in a hundred in our clumsy attempts to extinguish fires or to spread the loss more widely among insurance companies. If my previous computations are correct as to the possibility of saving or adding to our capital at the rate of $1,000,000,000 a year at the present time, then we might add 10 per cent to our savings, or $100,000,000 more, by avoiding two thirds of the useless waste by fire, and of the useless expenditures contingent thereon.

We waste in useless taxation. Our taxes—National, State, county, and municipal—approximate $12 per head. A large portion of this is, of course, well spent. Taxation itself does not constitute an unnecessary burden when the avails of taxes are expended by the Government in doing what Governments must do, or what they can do better than the people can accomplish for themselves. On the whole, it may perhaps be assumed that we get, in value received, 75 cents on $1 of the sum of our taxes, and our waste approximates 25 cents on $1.

But my main object in this address is to treat the waste of food. What is the standard or average ration of the working people of this country, and what does it cost? What might be a true ration, and how much could be saved in the cost of food if some of the more simple principles of science could be made a part of the common knowledge of the people? It may be asked, why should we be urged to save, when nearly all our present difficulties are attributed to overproduction? The general application of this term always exasperates me. I desire to examine the outside of the head of any one who pleads a general overproduction, in order to see how his brain is constituted, and what element of common sense has been omitted in his make-up. What we all have in common, and about the only thing we do have in common, is time. What we need most to save, is time. What the world requires more than anything else, is time, to be devoted to leisure and rest. If we waste our capital, or if we waste our labor, we are making a great waste of time. Now, it is no benefit to any one to shorten the hours of labor by force. It is no benefit to limit the freedom of contract of adults, who are capable of making their own contracts, by legal provisions, as to their hours of labor, in my judgment. I am of opinion that all such acts, except such as apply to children whose parents are not suitable guardians for them, work more harm than good. What we have to do, is to increase the general measure of intelligence, so that all people who are at work will earn leisure by saving force, and when they have thus earned a part of their time, and have saved it from the arduous struggle of life, then they will know what use to make of it, and will use it well. Now, half our effort, measured in money, and more than half our time, is spent on food. Do we overproduce food, or do we misuse it? This question brings me to the waste of food. It will have become apparent to you from your own investigations, and from the consideration of the figures of statisticians, both in this country and in Europe, that aside from those who have earned leisure, either by their own accumulation of wealth or by that which has been devised to them by their ancestors, half the struggle of life is a mere struggle for food.

This is demonstrated by the ratio which the cost of food bears to the cost of all other elements of subsistence, clothing, and shelter. But I suspect that if we were to measure the struggle for life in terms of hours rather than in terms of money, we should find that a very much greater part of life was devoted to the production and preparation of food than is represented by the measure even of one half. You will observe that in these computations of the cost of living which are made in money, all that we obtain is the cost of the food delivered at the house, but no computation is or can be made in terms of money of the labor of the housewife or children in preparing that food for use. Every one knows how continuous and how arduous this is, and herein lies the great waste of force. I do not mean to deal in generalities upon the necessity of teaching women how to cook, although that is fundamental. There is yet more to be done in the way of teaching both men and women what to buy for the purpose of being cooked. I had this conviction long ago without any approach to scientific knowledge in the premises, but by great good fortune, through conversation with Professor Sedgwick of our Institute of Technology, I have had correspondence with Professor Atwater, who is here to-day, and who will presently exhibit to you diagrams and charts which will prove to you the value of the nutrient material in different kinds of food and its measure in money at the prices which are now paid for food. To him I will leave the burden of treating that subject; but in order to enforce in some degree the principles which he will present to you, I beg to submit some statistics of the practice of two classes of people. According to my observation in past years, when I was directly connected with a manufacturing village, I reached the conclusion that the French Canadians were more skillful in obtaining a good subsistence out of cheap food, *i. e.*, low-priced, than any other class of people of whose practice I had any knowledge.

I now present to you the statistics of the cost of food for six months, chiefly in this year 1885. I will first give you the cost of the food of nine adult males and five adult females in a boarding house. These people are mostly Irish:

		Per day.
Meat	$243 70	9.52 cents.
Milk, butter, and cheese	165 69	6.50 cents.
Eggs	35 50	1.40 cents.
Total cost of animal products		17.42 cents.
Bread	103 70	4.07 cents.
Sugar	48 42	1.90 cents.
Vegetables	33 50	1.32 cents.
Fruit	29 88	1.17 cents.
Tea and coffee	18 00	.70 cents.
Salt, yeast, ice, spice, and sundries	54 51	2.14 cents.
Total	$732 90	28.72 cents.

Now, let me give you the cost of food of a French Canadian family of ten persons who have not changed their habit in any great measure since they moved into Massachusetts. In this family there are four adults and six children, from two to eighteen years old. Three of the children are ten years, or under, and we will therefore compute the family as equal to eight and one half adults. Their ration was as follows:

		Per day.
Meat	$77 66	5.02 cents.
Dairy	71 87	4.63 cents.
Eggs	14 88	.96 cents.
Total of animal products		10.61 cents.
Bread	46 08	3.00 cents.
Vegetables, green and dry	43 82	2.82 cents.
Sugar	29 16	1.87 cents.
Fruit	16 28	1.05 cents.
Tea and coffee	9 95	.63 cents.
Salt, spice, ice, and sundries	27 72	1.81 cents.
Total	$337 42	21.79 cents.

Now you will observe that there is a difference in the cost of animal products between these two cases of 6.81 cents, which is almost exactly the difference in the average cost of food per day, but the French spent 1½ cents more on vegetables, chiefly on dried peas, and I think Professor Atwater will show you that the actual nutriment in the peas added, is about as much as the meat displaced. I think that when Professor Atwater examines, as he will, the relative value in sustaining life of the particular kinds of food represented in these two schedules, he will find that the French Canadians have substituted dry peas and beans to such an extent for meat as to have obtained the same amount of nutrition at the difference in cost, which he will presently show you in his diagrams and in his tables. It is also true, I believe, that the French Canadians use the stewpan where we use the fryingpan, and herein lies a vast difference. Now this may seem trifling, but you must bear in mind that a saving of 5 cents per day for the cost of the subsistence of each adult person in the United States at the present time represents in money over $1,000,000,000 a year, and the difference between these two rations is nearly 7 cents per day, or more than $1,300,000,000 per year. It is curious to think of this. We cannot save this quantity of food—what should we do with it? We cannot sell it—where is the market? If we could apply such intelligence as would make this measure of saving possible, all that we could save would be time; all that we could gain would be leisure. But during the partial adoption of a true method he who learned it would save money, and thus get on in life.

Again, recalling the fact that half the struggle of life is a struggle for food, and that more than half the price of life is the cost of food, I am now able to make one comparison between two periods of time in respect to food in the exact manner which I have suggested to you in several circulars which I have sent to you. Referring to the first example of the ration of nine adult males and five females for six months, at the present time, I have obtained the data from the same boarding house of the cost of subsisting the same number of adults in 1873. In that year the cost of their food for six months was $1,083 51, or 42.52 cents per day, now 28.72 cents, a reduction of very nearly 33 per cent. The difference between these two periods in the cost of fuel, light, and soap was over 30 per cent. Rent in this village was an arbitrary sum. The factory tenements were charged with barely enough rent to keep them in repair, and were not looked to as a source of income, so that I have no opportunity in this case to compare the relative conditions of shelter. Neither have I been able to make an exact computation of the reduction in the cost of clothing: but, judging from certain elements which enter into the cost of clothing, I am of opinion that the reduction has amounted to more than 33 per cent. You will observe that the prices of 1873 are in the depreciated currency of that period. It would not suffice for an accurate comparison even to reduce them to terms of gold, the malignant effect of bad money, or mock money, as the greenback has so well been named, being to vitiate all our statistics. Suffice it that where these figures show a reduction in the cost of living at the present time as compared to 1873, averaging at least 33 per cent, the wages of factory operatives who are in continuous employment at the present time are less in gold than the currency wages of 1873 by a difference not exceeding 20 per cent. Wages in gold are now as high or higher than they were then. I think it is proved that the lower wages of the present period will buy very much more food, fuel, shelter, and clothing than could be purchased for the wages of the period of inflation from 1869 to 1873. In fact, I am sure of it, and one of the most useful applications of the standard ration on your part will be to make this fact so plain that "he who runs may read," if you can do so. There is nothing new under the sun. When I made the suggestion to Professor Atwater to prepare for me a variety of bills of daily fare at varying price, each of which should contain the necessary quantity of protein, fats, and hydro-carbon, I did not suppose anything of the kind had ever been done. We will submit to you several examples which are to be perfected for our use at the meetings of the American Association in August. But he also showed me a German pamphlet prepared by a man who is interested in the import of Texas beef and Australian mutton, in which this idea has been fully carried out. There is a bill of fare for a fortnight at a cost of about 18 cents per day, and it is curious to note how meager it is for the money.

Let us return to our own problems. It has been shown how great a reduction there has been in the cost of living in recent years. But it may be said, on the other hand, by so much as the factory operatives can now purchase their subsistence at less cost than they did in former years will the producers of food, of timber, and of the materials for shelter and of manufactures receive less. May not they suffer as much as the operatives gain? By no means. Herein is to be found the enormous beneficence of the saving of force in the production and distribution of products. The work of the farmer has been enormously reduced by the application of machinery to agriculture, and I need not refer you to the tables which I have compiled on the railway question, by which it appears that the cost of distribution by railway between 1869 and 1885 represented a sum nearly if not quite equal to the reduction from the currency price of food to its gold value to the present day. We have learned so well how to save the expenditure of force in the matter of primary production and of wholesale distribution, that I think it is perfectly safe to say of Uncle Sam, considered as a concrete individual, that if he works the same number of hours in 1885 as he did in 1865, at the end of the civil war, he can produce or distribute one third more now than he could then, and this is the secret of what we call overproduction. It follows that if we choose to work as hard as we did then, we must find a wider market for all our produce, as we have found a wider market for the special product of our agriculture; or otherwise, if we do not care to work so hard we may work less; that is to say, we may save our time. I think we are saving our time. I believe that the general struggle for life is less arduous, and that remuneration is more evenly divided now than in any previous period in our history, notwithstanding the apparent loss, depreciation, and specific lack of employment in certain directions. You overlook a vastly wider field than can possibly come under my supervision. I ask you whether the following statement is not a true one. Accepting the tables which I have submitted to you in regard to the distribution of occupations, it appears that not less than nine tenths of the population who are engaged in any kind of gainful occupation, that is to say, ninety persons in each one hundred of those who work for money, are either in the position of a small farmer who must work harder than any of his men, or else of a wage earner or salaried person. Now I ask you with respect to the wage earners if it is not true that 75 per cent, in point of number, are now in continuous employment at as high rates of wages as they ever received before? Furthermore, is it not true that of the remainder 15 per cent are at work at rates of wages which have not been reduced on the average 20 per cent from the highest point, and, therefore, are as well off as ever before? Is it not also true that 5 per cent of the remainder, or more, have partial employment as much as they have usually had? Is it not, then, true that the proportion who are out of work constitute less than 5 per cent of the whole force? Where is there a large body of unemployed persons at the present time, aside from the two or three particular branches of occupation in which there has been a temporary congestion? If you answer these questions affirmatively, do you not, then, declare in terms that the working people, as a whole, are to-day more prosperous than they ever were in the history of this country? Is this not the fact when we get to the bottom of it? If so, whence the loud cry of hard times, of loss, and of depreciation? Is not our whole problem, how to make the work continuous and how to avoid the great fluctuations in the demand for labor, even if only a small proportion are adversely affected by these variations of demand? I can only say, in a very few words, that in my judgment that which is now happening, or has been happening during the last two years, has been an adjustment of labor and capital to new conditions which have been developed since the war, and of which we are now feeling the secondary effects. These new conditions are of the most profound and revolutionary character. They represent a vast saving of force in production, in distribution, and in the great commerce of the world. What are they? First, the abolition of slavery in this country and the effective application of free labor; second, the extension and consolidation in the railway service, especially of this country, but also in other countries; third, the opening of the Suez Canal; fourth, the invention of the Bessemer process of making rails; fifth, a vast improvement in steam engineering, whereby the application of fuel to the arts has been reduced more than one half in quantity and in cost; sixth, the extension of the telegraph system; seventh, the invention of the telephone; eighth, the restoration of a specie standard of value in countries which had for many years been on a paper basis. Each one of these changes, improvements, or inventions has eliminated a part of the cost of subsistence, if cost be measured in terms of labor. Aside from these startling changes and new inventions, almost every customary process has been made easier, quicker, or more productive. It was, therefore, in the way of progress that the elimination of cost in terms of labor should find its ultimate expression in a reduction in prices or in an advance in the rate of wages;* the ultimate effect of all

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* Very able arguments have been presented by Mr. Goschen, Mr. Giffen, and others, in which this great decline in prices is imputed to an increasing scarcity of gold. In Mr. Giffen's recent article in the June "Contemporary Review," he gives a very clear statement of all the facts in the case, and while referring somewhat incidentally to the improvements which have been made in the processes of production and distribution, he yet attributes the reduction of prices to the diminishing product of gold. I can only regard this as an hypothesis unlikely to be proved, because both Mr. Goschen and Mr. Giffen seem to me to give very little regard to the element which I should consider the chief cause of a reduction in price. They take note, it is true, of the increasing quantity of staple products as a factor, but they do not appear to give any attention to the fact that the increased product is the result of the same or of a less quantity of labor. In order to demonstrate the effect of this important element in the case, we may also present hypothetical conditions.

First—Let us suppose a given community engaged in manufacturing and farming, and supplied with all the coin it needs to serve for its instruments of exchange, and for bank reserves. Consumption is restricted, because the roads are bad, and the time required to make the exchange is long. If a large quantity of gold is added to the quantity of coin, without being accompanied by other improvements, through the sudden opening of a mine in which the labor cost of procuring the gold is small, would not the only effect be a rise in prices, unless the coin could be exchanged for imports?

Second—Suppose, on the other hand, that no addition is made to the stock of gold, but that railways are substituted for common ways, with no improvement in the processes of production. Yet, would there not be a great saving of time in making the exchanges, and would not this cause less coin to be required? Would not a fall in prices of bulky commodities probably ensue, if this change were accompanied by a transfer of the coin, which could be spared to foreign countries, in exchange for something which had before been beyond the means of the community?

Third—Suppose a great reduction in the labor cost of production, and of transportation, were made at the same time, with no addition to the stock of coin, in such case would not increased consumption and activity ensue, the saving of time offsetting the increase of transactions, so that the old stock of coin might still suffice, and the end would be greater abundance, and increased consumption at the same prices?

Fourth—But, now let us assume what seems to me the actual facts. Between 1850 and 1860, the modern railway and the modern steamship began to have their effect upon commerce. Agricultural machinery, improvement in steam engines, and in the processes of manufacture, began to have their effect on production—the electric telegraph came into use—and had the volume of the precious metals remained the same, a great reduction of prices might well have been expected, growing out of the increased production, and decreased cost of distribution, and great saving of time. Such had been the effect of the last series of great inventions, such as the first application of steam, of the power loom, of the locomotive, and the great development in iron mining and manufactures, without which England, especially, could not have sustained the wars of the first part of the century. But, coincident with the changes in production, between 1850 and 1860, came the vast addition of the precious metals, at the lowest possible cost of production, and they more than counteracted the lessening cost of production of other commodities. As compared to 1845–50, prices steadily rose, until the advance culminated between 1870–75. Increase of gold in circulation more than counterbalanced the increased production and wider distribution of other commodities. It will be observed that in such periods great fortunes are made, because the rise in wages is much more slow than the rise in prices, and wage-earners are the great consumers of the goods and wares, from the sale of which fortunes are secured. The advantage which rising or high prices bring to wage earners, is that of continuous employment; otherwise they are a disadvantage to them. During the period from 1865 to 1875, however, another era of unusual invention, and of great reduction in the labor cost of all production, took place, and again it would have been reasonable to expect a fall in prices; but, although the panic of 1873 had been severe, it did not result in a permanent fall—it caused a fluctuation only—the enormous mass of precious metal added between 1850 and 1870 had not yet worked out its full results. The excessive abundance of gold enabled Germany to substitute gold for silver, and in this way caused a depreciation of silver, the product of which was still increasing; the United States and Italy found abundance of gold for their purposes, without causing a sign of scarcity anywhere, and such has been the stimulating effect on prices of the vast addition to the stock of gold, at low cost of production, that the effect of all these improvements, which would otherwise have immediately caused a decrease in the prices of grain, cotton, iron, copper, sugar, textiles—in short, of every great staple, except lumber—was deferred until 1882–83. This great and sudden excess of gold has now, at last, become distributed; the production of gold is ample to provide for waste; there is no sign of a scarcity anywhere of gold, and there is still a small excess of silver, and at last the beneficent results of all the inventions to which I have referred, are becoming apparent, from which we are now obtaining our vast abundance of food, fuel, metal, and clothing, accompanied by a great reduction in rents, both of land devoted to agriculture and of city property, and we have, at last, the lower prices to which they entitle us. In such periods, the owners of railways, factories, warehouses, and works which have been constructed on a basis of high prices, must suffer; merchants and manufacturers, who carry stocks of goods, also suffer, and the small proportion of the working classes who are customarily employed in constructive enterprise, find employment with difficulty. All the rest gain. Abundance and low prices are a permanent benefit—the great volume of the necessary traffic, which constitutes at least 90 per cent of the whole, goes on its customary way, and when the adjustment shall have been made, when constructive enterprise begins again, and when general prosperity returns, every one will see what is now apparent to only a few; that such hard times as are produced by an abundant production at a decreasing cost, measured in terms of labor, are, in fact, the periods when the mass of the people are making the greatest progress in substantial welfare. Aside from the entirely abnormal conditions of war, I have myself witnessed the purely commercial crisis of 1857, the railway panic of 1873, the long period of depression and progress preceding the restoration of the specie standard in 1879, and the recent era of abundance and adjustment of prices, which have been called the "hard times," between 1882 and 1885. Each of these periods has been one of the cure of a previous disease in the financial fabric, and after the remedy has worked, great prosperity has ensued; and the present era will, in my belief, very soon prove to have been one of the most wholesome processes, during which the foundations are being laid for rendering the struggle for life vastly easier than it has ever been before, and in which a very few will have suffered for a time, while the vast majority will have gained. Time would not suffice to analyze the beneficent effects of permanently low prices, growing out of abundance, but if you have followed me closely, you will observe that such low prices are accompanied by correlatively high wages, the necessary consequence being a much more equitable and natural division of products between labor and capital, to the enduring advantage of the former.

In the periods of adjustment to a lower plane of prices and to lower wages, even if the wages of those whose employment is continuous are *somewhat reduced*, there are many real hardships and many more which are imaginary, both tending to widespread discontent. Most of these difficulties would be greatly alleviated if very sudden fluctuations could be avoided. Yet whatever may be the dangers and distress occurring in such periods, I am of the profound conviction that each adjustment to such lower and lower prices as are caused by an increasing abundance of products at a lessening cost, measured in terms of labor, is a step in material progress and to the lasting benefit of the working people of the country.

invention, as I have attempted to prove in an essay on "The Distribution of Products," being to leave with the laborer an increasing share of an increasing product, and to leave to capital a decreasing share of an increasing product, which may yet be consistent with an absolute increase in the amount of capital saved. But in such vast changes the accumulation of property, *i. e.*, capital, has borne the burden of the change. The recent period of depression has been the rich man's funeral, and not the poor man's. This recent period has been one in which capital has been reduced in its market value, *i.e.*, in the price at which it could be sold or exchanged, much more than labor. The price or wage of labor, taken in the aggregate, has been reduced much less than the price of capital. The purchasing power of wages has increased, while the income of capital has decreased. I believe we are now entering upon a new period, which will be a period of great progress and prosperity for rich and poor alike in this country upon this new foundation of more effective capital and more productive labor.

In this hasty sketch I have endeavored to present to you the importance of some of the suggestions which I have made for determining, first, the relative share which capital can secure from our present product; second, the relative share which enures to the laborer; third, the use to which the laborer may put his share, as indicated by the statistics of consumption. These problems present almost a new field to the statistician, and the application of those statistics by scientific methods may result in showing a way of saving force which will become a part of the common knowledge. What is this purpose, merely bread and butter? Far from it. When we have learned the way through labor to leisure, well earned and well used, we shall have established a moral basis for the material science to which we devote so much of our time and of our attention. Through effort and labor to knowledge, through the control which a knowledge of science may give over the forces of nature to leisure, and through leisure to welfare not only material, but also moral and spiritual, appears to be the method of evolution which the power that makes for righteousness has established as the law governing that portion of human life which is spent on this earth, while man dwells upon it in a material body.

Gentlemen, I have addressed you with a very grave sense of the responsibility which rests upon you. You are looked upon, to a certain extent, as the special spokesmen of laborers. It has been in their interest, as a distinct class, that your offices have been created and that you have been charged with your duties. Yet for you to become parties in a supposed conflict between laborers and capitalists would be most disastrous to those whom you are assumed especially to represent. Nothing can be more important to the rights of labor than that laborers should respect the rights of capital, while the danger of the laborer consists in far greater measure in restrictive legislation than that of any other class. Capital can adjust itself to almost any conditions, and can even secure to itself a larger share of the smaller product which will inevitably ensue when free competition is restricted by statute laws; but the laborer who invokes the power of the law to deprive him of the liberty of contract, and who prevents the free working of competition by such restrictive statutes, must bear the greater share of the loss which will almost certainly ensue, even more than his relative proportion. In the last analysis the earnings of the laborer rest wholly upon his individual character, capacity, and integrity, and any statute or legislative act which prevents him from disposing of his time, his skill, his work, or his money with absolute freedom, provided he does no injustice to his fellows, will be the gravest misfortune to which he can be subjected. I know of no position of trust or responsibility which calls for higher quality of mind than the positions which you hold. No one knows better than the statistician what a snare statistics may become, nor how untrue may be the deductions from them if they are not complete, or if they are not used with judicial integrity and under the strictest sense of responsibility to truth.

THE CHEMISTRY AND ECONOMY OF FOODS.

Paper by Prof. W. O. ATWATER.

It is an interesting fact that, although the cost of food makes up the larger part of the living expenses of ordinary people, even the most intelligent know less of the actual value of their food for fulfilling its purposes than of that of almost any other of the staple necessaries of life. The man who buys a coat has generally a pretty fair idea as to the relation between its value and its cost, and if he is getting material to have it made, he knows about how much of each kind of material is wanted, and does not fall into the error of buying a great deal more cloth than he needs for the outside and using part of the excess for lining when cheaper material would do as well or better, nor does he try to economize by buying poor buttons and too little thread. But for his food he is very apt to select materials which furnish some of the nutritive ingredients at needlessly high cost, and in excessive amount, while they supply others in insufficient quantity and in very uneconomical ways.

If I succeed in making clear to you the points which I am here to urge, I believe you will be persuaded that not only our so called laboring classes, but all who desire or are compelled to economize, would be greatly benefited by a better understanding of the principles on which the economy of food is based, and by the application of those principles in the purchase and use of their aliment.

I think a careful study of the subject will show that among the many ways in which our American habits of wastefulness manifest themselves, one of the worst is in the waste of food, and that this wastefulness is practiced by the poor as well as by the rich. It manifests itself in purchasing more than is needed, in using part of the excess to overload the alimentary organs and throwing the rest away, in using costly materials where less expensive ones would serve as well, in purchasing materials that are really dear, but seem to be cheap, and in the false economy of using too little of one material and too much of another, and thus losing where there is an earnest attempt to save. And it is not only the loss to the purse from wrong selection of food in the market, but the loss to both purse and health by wrong keeping and cooking and using at home that is to be deplored, and ought to be avoided.

Then, too, we have to remember that it is the ignorant, and that means the poor, that suffer most from this improvidence, and when we consider still further the suffering that is endured from wrong use of food—and some of our wisest students of physiology and hygiene are persuaded that improper eating, and especially overeating, is a source of more disease than any other one thing; that what we may call the eating habit does, on the whole, more harm to health than the drinking habit—I think we shall be persuaded that the subject of the nature and uses of food is one worthy of our most careful consideration.

A pound of lean beef, round steak freed from fat, for instance, and a quart of milk, both contain about the same quantity, say a quarter of a pound, of actually nutritive material. But the pound of beef costs more than the quart of milk and it is worth more as a part of a day's supply of food. The nutritive materials or nutrients, as we call them, in the lean meat, though the same quantity as in the milk, are different in quality, and of greater nutritive value.

We have here an illustration of a fundamental fact in the economy of foods, namely, that the differences in the values of different foods depend upon both the kinds and the amounts of the nutritive material which they contain. If, then, we would understand the nutritive value of foods, we must know, first of all, what they are composed of. Knowing this, we must next consider what the several food ingredients do in the body: what is the special work which each one of the different nutrients has to perform in building up our bodies and in supplying their wants. When, in addition to all this, we know how much of each class of nutrients our bodies require and our food materials contain we shall be in condition to economize our foods as we do the other necessaries of life.

Twenty-five years ago, indeed I might say fifteen years ago, but comparatively little was known about these things, and for that matter our knowledge of them is still very far from complete. But, nevertheless, we do know to-day about how much of the different nutritive ingredients, or nutrients as they are called, our ordinary food materials contain, and we have a tolerably clear conception of the functions of these different ingredients in the nutrition of our bodies; and finally, a large amount of observation and experiment has told us about what proportions of the several classes of nutrients are required to meet the needs of people in different conditions of life.

LATER RESEARCH IN THE SCIENCE OF FOOD AND NUTRITION.

Among the numerous branches of biological research by no means the least interesting and important is the study of foods and nutrition. Within the past fifteen years especially, a very large amount of scientific labor has been devoted to the investigation of the composition of foods and the function of their ingredients in the animal economy. Indeed, very few persons this side of the Atlantic have any just conception of the magnitude of this work and its results. And, though the most important problems are still unsolved, and must, because of their complexity, long remain so, yet enough has been done to give us a tolerably clear insight into the processes by which the food we eat supplies our bodily wants.

The bulk of our best definite knowledge of these matters comes from direct experiments, in which animals are supplied with food of various kinds, and the effects noted. The food, the excrement, solid and liquid, and in some cases the inhaled and exhaled air, are measured, weighed, and analyzed. Many trials have been made with domestic animals—horses, oxen, cows, sheep, goats, and swine—with dogs, rabbits, birds, and the like; and a large number also with human beings of both sexes and different ages. In the philosophical planning of the researches; in the ingenuity manifested in devising apparatus; in accuracy, thoroughness, patience, and persistence in the work, as well as in the distinguished genius of many of the workers, chemico-physiological science has assumed the highest rank among the sciences of our time; with the rest it has brought us where we can estimate the nutritive values of foods from their chemical composition, with so near an approach to accuracy that in Germany, where the best research is done, tables, giving in figures the composition and nutritive valuations of foods, have been prepared by eminent chemists and physiologists and are coming into general use.

HOW OUR FOOD SUPPLIES THE WANTS OF OUR BODIES.

Our food supplies the wants of our bodies in four ways:

Food furnishes—

1. The material of which the body is made.
2. The material to repair the wastes of the body.

Food is consumed in the body to—

3. Produce heat to keep it warm.
4. Produce muscular and intellectual strength for work.

To understand how food does its work in the nourishment of our bodies we must recall the fact that our bodies and the materials that nourish them are both composed of a certain list of chemical elements which are combined in a great variety of compounds. These compounds we may divide into three groups:

A. *Water.*
B. *Organic compounds.*
C. *Mineral compounds.*

About water we need here say very little. Of the mineral compounds, one of the most important is the phosphate of lime which makes the basis of bone. Phosphates, sulphates, and chlorides of potassium and sodium, and other mineral salts likewise, occur in our bodies and are essential not only to health, but even to life itself. But in studying food from the standpoint of its nutritive value, that is, value for supplying bodily wants, we have to do, chiefly, with the organic compounds. These we may roughly divide into three principal classes, and this classification will do for the organic compounds of both our food and our bodies.

I. *Protein compounds,* otherwise known as albuminoids, flesh formers, or "flesh substance."
II. *Fats.*
III. *Carbohydrates.*

This division answers very well so long as we are only making approximate estimates of the nutritive values of our foods, but when we study foods very accurately, and more especially when we come to the chemistry of the body, we find compounds which cannot very well be placed in either of these classes. Fortunately for our purpose, however, the proportion of these latter compounds in our foods and in our bodies is very small.*

We have not as yet sufficiently accurate analyses to tell in just what proportions these compounds occur in the body. Very probably the body of an average healthy man, weighing one hundred and forty-eight pounds, or with clothing one hundred and fifty-six pounds, would contain something like the following quantities:

Weights of Compounds in Body.

Water	89.5 pounds.
Protein, etc.	26.8 pounds.
Fats	23.3 pounds.
Carbohydrates, etc.	0.1 pounds.
Mineral matters	8.3 pounds.
	148.0 pounds.

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*This classification leaves out of account numerous compounds of minor importance, including the so called "nitrogenous extractives," which are the essential constituents of "extract of meat." See beyond.

Of course I do not mean to say that this is an exact statement of the amounts of these compounds in the body of any given man or of an ideal man. These figures are simply an attempt to show, in a general way, in about what proportions the compounds probably occur.

Such then is the composition of the body. These elements and compounds must come from the food. It is the food that furnishes the material of which the growing body of the child is built up, and as our tissues are being continually consumed by work, and thought, and worry, it is by food that they are restored; and finally it is our food that supplies the fuel by whose consumption the heat and strength of the body are maintained. Viewed from the standpoint of their uses in the nutrition of man, the constituents of ordinary foods may be succinctly classified as follows:

1. *Edible substance, e. g.*, the flesh of meats and fish, the shell contents of oysters, wheat flour.
2. *Refuse, e. g.*, bones of meat and fish, the shells of oysters, bran of wheat.

The edible substance consists of—

1. *Water.*
2. *Nutritive substance or nutrients.*

Of the meat my butcher sends me, the fish I find in the market, and the other food upon my table, only a part serves to fulfill these purposes. The bone of my roast beef I do not use for food at all, and that of shad is worse than useless, because of the bother it makes me to get rid of it; it is only the edible portion that is of actual value to me as food, the rest being merely refuse. And when we come to consider the edible portion, the meat freed from bone and gristle, the flesh of the fish, or the flour as it is baked in bread, we find that these consist largely of water. And although water is indispensable, that in the meat or the potatoes on my table is of no more value for the support of my body than the same amount in milk, or in the glass of water by my plate.

Leaving out of account, then, the refuse and the water, we have the nutritive materials, or, as we may call them, the nutrients of our foods. Speaking as chemists and physiologists, we may say that our food supplies, besides mineral substances and water, three principal classes of nutritive ingredients, or nutrients, viz., albuminoids, carbohydrates, and fats; and that these are transformed into the tissues and fluids of the body, muscle, and fat, blood, and bone, and are consumed to produce heat and force.

Let me speak in a little more detail of the compounds of which our foods are composed:

Protein, so called, "flesh-formers," or, "flesh substance."—The terms protein, proteids, and albuminoids, are applied somewhat indiscriminately, in ordinary usage, to several or all of certain classes of compounds characterized by containing carbon, oxygen, hydrogen, and with them, nitrogen. The most important are the proteids, or albuminoids, of which albumen, the white of egg, fibrin of blood, casein of milk, myosin, the basis of muscle, and gluten of wheat, are examples. Allied to these, but occurring in smaller proportions in animal tissues and foods, are the gelatinoids, the nitrogenous compounds that make the basis of connective and other tissues. Gelatin, whence the name gelatinoid (gelatin-like), is derived from some of these tissues, and may be taken as a type of the compound of this class. As these constituents are of similar constitution, and have similar, or nearly similar, uses in nutrition, it is customary to group them together as protein. What we should especially bear in mind, then, is that protein is a term applied to the nitrogenous constituents of our foods, and we shall see these are, in general, the most important, as they are most costly, of the nutrients.

The muscular tissues of animals, and hence, the lean portions of meat, fish, etc., contain small quantities of so called nitrogenous extractives—creatine, carnin, etc.—which are the chief constitutents of meat extract. These contribute materially to the flavor, and somewhat to the nutritive effect, of the foods containing them. They are not usually deemed of sufficient importance, however, to be grouped as a distinct class in tabular statements of the composition of foods.

Fats.—We have familiar examples of these in the fat of the meat (tallow, lard), in the fat of milk, which makes butter, and in olive, cotton seed, and other animal and vegetable oils. The fats consist of carbon, oxygen, and hydrogen, and contain no nitrogen. In nutritive value, as in cost, they rank next to the protein compounds. For some of the nutritive functions, indeed, the fats equal or exceed protein in importance.

Carbohydrates.—Starch, cellulose (woody fiber), sugar, and inosite ("muscle sugar"), and other similar substances, are called carbohydrates. Like the fats, they consist of carbon, oxygen, and hydrogen; but they have less carbon and hydrogen, and more oxygen than the fats.

Mineral Matters, or Ash.—When vegetable or animal matters are burned, more or less incombustible material remains as ash. The ingredients which make the ash are called mineral matters, or, sometimes, salts. They are, for the most part, compounds of the elements, potassium, sodium, calcium, and iron, with chlorine, sulphuric acid, and phosphoric acid. Sodium, combined with chlorine, forms sodium chloride, or common salt. Calcium, with phosphoric acid, forms calcium phosphate, or phosphate of lime, the mineral basis of bones.

Our bodies, as I have already said, contain scores of compounds, many of which cannot be included in either of the above four classes. But the bulk of the compounds, exclusive of water, in the bodies of animals, as well as those in the food by which they are nourished, may be classed with either protein, fats, carbohydrates, or mineral matters.

Animal foods, as meats, fish, etc., contain but little of carbohydrates, their chief nutrients being protein and fats. Milk, however, and some shell-fish, as oysters, scallops, etc., contain more or less of carbohydrates. Vegetable foods, as wheat, potatoes, etc., contain less protein, and consist largely of starch, sugar, cellulose, and other carbohydrates, though nearly all contain more or less of fats.

HOW THE NUTRITIVE INGREDIENTS OF THE FOOD NOURISH THE BODY.

These different nutrients, as we have seen, have different offices in nourishing the body, in building up its tissues, repairing its wastes, and serving as fuel to produce animal heat, and muscular and intellectual energy. Just what is done by each class, exactly how they are transformed and used in the body, is not yet fully known. Still, we have to-day a tolerably fair idea of the principal parts played by each class of nutrients.

Suppose that I have, for breakfast, beefsteak, bread and butter, and potatoes. The beef supplies me with considerable protein (in the lean meat) and fat. The butter is nearly all fat. The bread contains a little protein and fat, and the potatoes the same ingredients, but in still smaller proportions, the principal nutrients of both being starch or carbohydrate.

A small part of the food passes through the body, undigested, and constitutes the excretion of the intestines. The larger portion is digested, taken into the blood and distributed through the body, where it does its work, is consumed, and finally given off as water and carbonic acid, by the lungs and skin, and as water, urea, etc., by the kidneys. So, then, the bulk of the protein, fats, and carbohydrates of my breakfast is digested, and, in the course of the day, the larger part of this digested material finds its way into my blood, and is distributed through my body.

Part of the protein of the food serves to repair my muscles, tendons, skin, and other organs, that are being worn out by constant use. The rest is consumed, sooner or later—no one knows exactly when, where, or how. Part is probably transformed into fat, and stored as fat in my body, and thus replaces fat that is consumed to keep me warm and to give my muscles strength for the work they have to do. And probably a part of the protein is changed into glycogen, a carbohydrate which occurs in the liver.

Part of the fat of the meat and bread is stored as fat in my body, and part is burned, yielding heat to keep me warm, and muscular energy as well. The chief use of the carbohydrates, the starch and sugar, of the bread and potatoes seems to be to serve for fuel though they are transformed into fats also. It is a matter of common experience that many people are made corpulent by eating sugar and starchy foods, and grow lean when they avoid them.

By comparing the amounts of carbon, oxygen, hydrogen, and nitrogen, actually found by experiments to be consumed by different individuals, and also noting the amount and composition of the food of different people, estimates have been made of the quantities of the several nutrients required by individuals of different classes under various conditions. Professor von Voit, of the University of Munich, for instance, who has made more extended researches upon this subject, perhaps, than any one else, computes that a fair daily ration for a laboring man of average weight, at moderate work, would need to supply 4.2 ounces (0.26 pound) of protein, 2 ounces (0.12 pound) of fats, and 17.6 ounces (1.12 pound) of carbohydrates. Of course he may get on with less of either one, provided he has more of the others. But there is a mimimum below which he cannot go without injury, and especially he must not have too little protein. He may have more protein and less carbohydrates or fats with no great harm, but with too little protein he will suffer, no matter how much carbohydrates his food may furnish.

CHEMICAL ANALYSIS OF FOODS.

Let us, then, notice what chemical analysis has to say of the amounts of the different nutrients in some of our ordinary foods. The tables beyond give results of analyses, the most of which are selected from a much larger number, performed in the chemical laboratory of Wesleyan University, at the instance of the Smithsonian Institution, for the Food Collection of the United States National Museum.

The details will perhaps be best explained by an example. The flesh, or edible portion of a specimen of beef sirloin, of medium fatness, was analyzed and found to contain, approximately: Water, 60 per cent; protein, 20 per cent; fats, 19 per cent; mineral matters, 1 per cent. But when we buy our sirloin steak or roast, by the pound, as we ordinarily do, we get not only the flesh, the edible substance, but with it more or less bone, sinew, and other refuse matter. This specimen contained about one fourth, or 25 per cent, of bone, and only three fourths, or 75 per cent, of flesh. If, then, we are to consider the composition of the meat as we buy it, we must take the refuse matters into account. The proportions of the several ingredients, in both the edible portion and the whole piece above referred to, are shown in the following table:

	In Flesh, Edible Portion—Per cent.	In Meat as Bought, Including Refuse—Per cent.
Refuse, bones, etc.	None.	25
Water	60	45
Protein	20	15
Fat	19	14¼
Mineral matters	1	0¾
Totals	100	100

This very imperfect analysis may be stated in the following form, as is done in the tables beyond:*

CONSTITUENTS OF SAMPLE OF BEEF (SIRLOIN).

FOOD MATERIAL.	IN EDIBLE PORTION—*i.e.*, Freed From Bone and other Refuse.					IN MEAT AS PURCHASED—Including both Edible Portion and Refuse.					
			Nutrients.				Edible Portion.				
									Nutrients.		
	Water	Nutrients	Protein	Fats	Mineral matters	Refuse, bones, etc.	Water	Nutrients	Protein	Fats	Mineral matters
Beef, sirloin, med. fatness—per cent	60	40	20	19	1	25	45	30	15	14.3	0.7

Tables I and II, herewith, give the composition of a number of animal foods, mostly from late American analyses. It is only a short time since analyses of American meats, fish, etc., have been undertaken in any considerable number, and those as yet accomplished are far from sufficient for a complete survey of the subject. Indeed, the work already done can be regarded only as a beginning. Still, the figures will give a tolerably fair idea of the composition of the articles named. Table III gives analyses of vegetable foods and beverages.

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*The tables contain also columns for carbohydrates, etc., which occur in milk and in some shell fish, but are not found in ordinary meats in sufficient amount to warrant their insertion in such statements as this.

TABLE I.

COMPOSITION OF ANIMAL FOODS.

Edible Portion—Flesh, etc., freed from Bone, Shells, and other Refuse.

KINDS OF FOOD MATERIALS. (*Italics* indicate European analyses, the rest are American.)	Water	Nutrients	Nutrients.				
			Protein (albuminoids)	Fats	Carbohydrates		Ash
MEATS—FRESH.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.		Per Cent.
Beef, side, well fattened	54.6	45.4	17.2	27.2			1.0
Beef, lean, nearly free from fat	76.0	24.0	21.8	0.9			1.3
Beef, round,* rather lean	66.7	33.3	23.0	9.0			1.3
Beef, sirloin,* rather fat	60.0	40.0	20.0	19.0			1.0
Beef, neck,* "second cut"	64.5	35.5	19.9	14.5			1.1
Beef, liver	69.5	30.5	20.1	5.4	3.5		1.5
Beef, tongue	63.5	36.5	17.4	18.0			1.1
Beef, heart	56.5	43.5	16.3	26.2			1.0
Veal, lean	78.8	21.2	19.9	0.8			(0.5)
Veal, rather fat	72.3	27.7	18.9	7.5			1.3
Mutton, side, well fattened	45.9	54.1	14.7	38.7			0.7
Mutton, leg*	61.8	38.2	18.3	19.0			0.9
Mutton, shoulder*	58.6	41.4	18.1	22.4			0.9
Mutton, loin (chops)	49.3	50.7	15.0	35.0			0.7
MEATS—PREPARED.							
Dried beef	58.6	41.4	30.3	4.4			6.7
Corned beef, rather lean	58.1	41.9	13.3	26.6			2.0
Smoked ham	41.5	58.5	16.7	39.1			2.7
Pork, bacon, salted	10.0	90.0	3.0	80.5			6.5
FOWL.							
Chicken, rather lean	72.2	27.8	24.4	2.0			1.4
Turkey, medium fatness	66.2	33.8	23.8	8.7			1.3
Goose, fat	38.0	62.0	15.9	45.6			0.5
DAIRY PRODUCTS, EGGS, ETC.							
Cow's milk	87.4	12.6	3.4	3.8	4.8		0.7
Cow's milk, skimmed	90.7	9.3	3.1	0.7	4.8		0.7
Cow's milk, buttermilk	90.3	9.7	4.1	0.9	4.0		0.7
Cow's milk, whey	93.2	6.8	0.9	0.2	5.0		0.7
Cheese, whole milk	31.2	68.8	27.1	35.4	2.4		3.9
Cheese, skimmed milk	41.3	58.7	38.3	6.8	9.0		4.6
Butter	9.0	91.0	1.0	87.5	0.5		2.0
Hen's eggs	73.1	26.9	13.4	11.8	0.7		1.0
FISH, ETC.							
Flounder, whole	84.2	15.8	13.8	0.7			1.3
Haddock, dressed	81.4	18.6	17.1	0.3			1.2
Bluefish, dressed	78.5	21.5	19.0	1.2			1.3
Cod, dressed	82.6	17.4	15.8	0.4			1.2
Whitefish, whole	69.8	30.2	22.1	6.5			1.6
Shad, whole	70.6	29.4	18.5	9.5			1.4
Mackerel, average, whole	71.6	28.4	18.8	8.2			1.4
Salmon, whole	63.6	36.4	21.6	13.4			1.4
						SALT.	
Salt cod	53.8	26.1	21.7	0.3		20.1	4.1
Smoked herring	34.5	53.8	36.4	15.8		11.7	1.6
Salt mackerel	42.2	47.2	22.1	22.6		10.6	2.5
Oysters	87.2	12.8	6.0	1.2	3.6		2.0
Scallops	80.3	19.7	14.7	0.2	3.4		1.4

* Portions of the side of which analysis is given above.

TABLE II.

Composition of Animal Foods.

Specimens as Purchased in the Markets. (Including both Edible Portion and Refuse.)

Kinds of Food Materials. (*Italics* indicate European analyses, the rest are American.)	Refuse: Bones, Skins, Shells, etc.	Edible Portion.					
		Water	Nutrients	Nutrients.			
				Portein (albuminoids)	Fats	Carbohydrates, etc.	Mineral Matters
MEATS—FRESH.	Per Cent.	Per Cent.	Per Cent	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Beef, side, well fattened	19.7	43.8	36.5	14.4	21.3	------	0.8
Beef, round, rather lean	10.0	60.0	30.0	20.7	8.1	------	1.2
Beef, sirloin, rather fat	25.0	45.0	30.0	15.0	14.3	------	0.7
Beef, neck, "second cut"	19.0	52.2	28.8	16.2	11.7	------	0.9
Beef, tongue	15.3	54.0	30.7	14.5	15.4	------	0.8
Beef, heart	6.0	53.4	40.6	14.8	24.8	------	1.0
Mutton, side, well fattened	20.0	42.9	37.1	13.2	23.2	------	0.7
Mutton, leg	18.4	50.4	31.2	15.0	15.5	------	0.7
Mutton, shoulder	16.8	48.7	34.5	15.0	18.7	------	0.8
Mutton, loin (chops)	16.3	41.3	42.4	12.5	29.3	------	0.6
MEATS—PREPARED.							
Dried beef	6.5	55.5	38.0	27.4	4.2	------	6.4
Corned beef, rather lean	6.2	54.5	39.3	12.5	24.9	------	1.9
Smoked ham	12.5	36.3	51.2	14.6	34.2	------	2.4
Pork, bacon, salt	5.0	9.5	85.5	2.8	76.5	------	6.2
FOWL.							
Chicken, rather lean	41.6	42.2	16.2	14.2	1.2	------	0.8
Turkey, medium fatness	35.4	42,8	21.8	15.4	5.6	------	0.8
DAIRY PRODUCTS, EGGS, ETC.							
Cow's milk	------	87.4	12.6	3.4	3.7	4.8	0.7
Cow's milk, skimmed	------	90.7	9.3	3.1	0.7	4.8	0.7
Cow's milk, buttermilk	------	90.3	9.7	4.1	0.9	4.0	0.7
Cow's milk, whey	------	93.2	6.8	0.9	0.2	5.0	0.7
Cheese, whole milk	------	31.2	68.8	27.1	35.4	2.4	3.9
Cheese, skimmed milk	------	41.3	58.7	38.3	6.8	9.0	4.6
Butter	------	9.0	9.1	1.0	87.5	0.5	2.0
Hen's eggs	13.7	63.1	23.2	11.6	10.2	0.6	0.8
FISH, ETC.							
Flounder, whole	66.8	27.2	6.0	5.2	0.3	------	0.5
Haddock, dressed	51.0	40.0	9.0	8.2	0.2	------	0.6
Bluefish, dressed	48.6	40.3	11.1	9.8	0.6	------	0.7
Cod, dressed	30.0	58.4	11.6	10.6	0.2	------	0.8
Whitefish, whole	53.5	32.5	14.0	10.3	3.0	------	0.7
Shad, whole	50.1	35.2	14.7	9.2	4.8	------	0.7
Mackerel, average, whole	44.6	40.4	15.0	10.0	4.3	------	0.7
Salmon, whole	35.3	40.6	24.1	14.6	8.8	------	1.0
							SALT.
Salt cod	24.9	40.3	19.4	16.0	0.4	------	15.4 | 3.0
Smoked herring	44.4	19.2	29.9	20.2	8.8	------	6.5 | 0.9
Salt mackerel	33.3	28.1	32.5	14.7	15.1	------	7.1 | 1.7
Oysters, in shell	82.3	15.4	2.3	1.1	0.2	0.6	0.4
Oysters, solids	------	87.2	12.8	6.3	1.6	4.0	0.9
Scallops, edible portion	------	80.3	19.7	14.7	0.2	3.4	1.4

TABLE III.

Constituents of Vegetable Foods and Beverages.

Kinds of Foods and Beverages.	Water	Nutrients.				
		Protein (albuminoids)	Fats	Carbohydrates, etc.	Woody Fiber	Mineral Matters
FOODS.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Wheat flour, average*	11.6	11.1	1.1	75.4	0.2	0.6
Wheat flour, maximum*	13.5	13.5	2.0	78.5	1.2	1.5
Wheat flour, minimum*	8.3	8.6	0.6	68.3	0.1	0.3
Graham flour (wheat)	13.0	11.7	1.7	69.9	1.9	1.8
Cracked wheat	10.4	11.9	1.7	74.6		1.4
Rye flour	13.1	6.7	0.8	78.3	0.4	0.7
Pearl barley	11.8	8.4	0.7	77.8	0.3	1.0
Buckwheat flour	13.5	6.5	1.3	77.3	0.3	1.1
Buckwheat "farina"	11.2	3.3	0.3	84.7	0.1	0.4
Buckwheat "groats"	10.6	4.8	0.6	83.1	0.3	0.6
Oatmeal	7.7	15.1	7.1	67.2	0.9	2.0
Maize meal	14.5	9.1	3.8	69.2	1.8	1.6
Hominy	13.5	8.3	0.4	77.1	0.3	0.4
Rice	12.4	7.4	0.4	79.2	0.2	0.4
Beans	13.7	23.2	2.1	53.7	3.7	3.6
Peas	15.0	22.9	1.8	52.4	5.4	2.5
Potatoes	75.5	2.0	0.2	20.7	0.8	1.0
Sweet potatoes	75.8	1.5	0.4	20.0	1.1	1.2
Turnips	91.2	1.0	0.2	6.0	0.9	0.7
Carrots	87.9	1.0	0.2	8.9	1.2	0.8
Cabbage	90.0	1.9	0.2	4.9	1.8	1.2
Cauliflower	90.4	2.5	0.4	5.0	0.9	0.8
Melons	95.2	1.1	0.6	1.4	1.1	0.6
Pumpkins	90.0	0.7	0.1	7.3	1.3	0.6
Apples	84.8	0.4	0.0	12.8	1.5	0.5
Pears	83.0	0.4	0.0	12.0	4.3	0.3
Starch	15.1	1.2	0.0	83.2	0.0	0.4
Cane sugar	2.2	0.3	0.0	96.7	0.0	0.8
Wheat bread†	32.7	8.9	1.9	55.5		1.0
Graham bread	34.2	9.5	1.4	53.3		1.6
Rye bread	30.0	8.4	0.5	59.7		1.4
Soda crackers	8.0	10.3	9.4	70.5		1.8
"Boston" crackers	8.3	10.7	9.9	68.7		2.4
"Oyster" crackers	3.9	12.3	4.8	76.5		2.5
Oatmeal crackers	4.9	10.4	13.7	69.6		1.4
Pilot (bread) crackers	6.9	12.4	4.4	74.2		1.1
Macaroni	13.1	9.0	0.3	76.8		0.8
BEVERAGES.			Alcohol.		Free Acid.	
Lager beer	90.3	0.5	4.0	6.6	------	0.2
Porter and ale	88.5	0.7	5.2	7.2	------	0.3
Rhenish wine, white	86.3	------	10.5	2.6	0.4	0.2
Rhenish wine, red	86.9	------	8.9	3.4	0.5	0.3
French wine, claret	88.4	------	8.1	2.7	0.6	0.2

*Of analyses of American flours.

†From flour of about average composition.

The analyses of foods in Roman letters are American; those of foods and beverages in *italics* are European.

The figures of Tables I and II, with the exception of a few from European sources and indicated by italics, are selected from the results of the investigation referred to above, as conducted under the auspices of the Smithsonian Institution and the United States Fish Commission. The specimens of meats were purchased from a dealer in Middletown, Connecticut, and said by him to be "fair average samples of the better kinds of meats." A side of beef, freshly brought in winter from Chicago, and said to be a fair specimen of the best quality of "Chicago beef," was cut into about twenty-five pieces in the ordinary way. From each a sample fairly representing the whole cut was taken and analyzed. Thus the composition of each piece and of the whole side was learned. The composition of one of the leanest portions, the round, a moderately fat piece, sirloin, a very fat portion, flank, and of the whole side, together with a tongue, liver, and heart from another animal, are given in the table. The samples of a side of mutton and of parts of the same side were obtained and analyzed in like manner, as were those of the other meats and fowls. The specimens of cheese were from Washington Market, New York, the analyses in the table representing averages of several samples. The butter was from a Vermont dairy. Some of the specimens of fish were purchased in Middletown, the most, however, were furnished gratuitously from Fulton Market, New York, by Mr. E. G. Blackford, Fish Commissioner of the State of New York, who also contributed to the pecuniary expense of the investigation, as did likewise Mr. A. R. Crittenden of Middletown. A considerable number of the specimens whose analyses are given in this table, and in the tables beyond, were furnished by Mr. F. B. Thurber of New York, who also contributed a considerable sum toward defraying the cost of the research, as did also Hon. J. W. Alsop, M.D., of Middletown, Connecticut. It may be added that the figures in Tables I, II, and III (aside from those from European sources) are selected from the results of nearly three hundred analyses of American food materials, of which some two hundred are of fish and invertebrates.

Table III gives analyses of vegetable food materials and beverages. The figures for wheat flour represent the results of forty-nine analyses of American flours, of which the majority were analyzed under the direction of Professor Brewer, and the rest collated by him from other sources for the "Report of the United States Census, 1880." The largest and the smallest percentages of each ingredient found in the analyses are given opposite "maximum" and "minimum." The specimens of bread, crackers, etc., were purchased and analyzed at Middletown, Connecticut, and have probably about the usual composition of such materials.

I have said so much by way of introduction to the tables, that it may be hardly advisable to discuss their contents at much length. Nor will this be necessary, for the figures themselves tell their own stories, and very plainly. Only a glance is needed to show, for instance, that fish as found in the markets generally contain more refuse, bone, skin, etc., than meats, as is illustrated in Tables I and II. With the larger proportions of both refuse and water, the proportions of nutrients, though variable, are usually much less than in meats. Thus a sample of flounder contained sixty-seven per cent of refuse, twenty-eight of water, and only five per cent of nutritive substance, while the salmon averaged twenty-three, the salt cod twenty-two, and the salt mackerel thirty-six per cent of nutrients. The nutrients in meats ranged from thirty per cent in beef to forty-six in mutton, and eighty-seven and a half in very fat pork (bacon). The canned fish compare very favorably with the meats. It is worth noting that the nutrients in fresh codfish, dressed, in oysters, edible portion, and in milk, all were nearly the same in amount—about twelve and a half per cent, though differing in kind and proportions.

Vegetable foods have generally less water and more nutrients than animal foods. Ordinary flour, meal, etc., contain from eighty-five to ninety per cent or more of nutritive material. But the nutritive values are not exactly proportional to the quantity of nutrients, because the vegetable foods contain but little protein and consist mostly of carbohydrates, starch, sugar, cellulose, etc., which are of inferior nutritive value, and because the protein they do contain is less digestible than that of animal foods. Potatoes contain a large amount of water, and extremely little protein or fats.

I wish to call attention to two more things concerning the composition of fish:

First—The chief difference between the flesh of fish and ordinary meats is, that the fish generally contains less fat and more water. The fat contained in the meats is, in the fish, replaced to a considerable extent by water. On this account, the flesh of fish has, generally, a lower nutritive value, pound for pound, than ordinary meats. Fish, as we buy them, have the further disadvantage in comparison with meats, that they contain larger percentages of refuse bone, skin, entrails, etc., than meats.

Second—On the other hand, in the flesh of most fish, the nutritive material is nearly all protein. That is to say, fish supply the ingredient of food which is the most important, and, as we shall see, the most expensive of all.

There is one difficulty with the tables, namely, that the figures for the analyses apply to either single specimens, or to averages of a number of specimens, and do not show the variations in the composition of the same food material, which are often quite considerable. Two illustrations of this are given, the mackerel in Table IV, and the wheat flour in Table V. The figures for "maximum and minimum" in the latter, show as above indicated, the largest and smallest percentages of each ingredient found in the forty-nine specimens of American wheat flour analyzed. Thus the percentages of water vary from eight and three tenths to thirteen and five tenths, the average being eleven and six tenths per cent, while the protein varies from eight and six tenths to thirteen and six tenths, averaging eleven and one tenth per cent.*

I hope to give elsewhere, at a proper time, more detailed tables of analyses illustrating these differences in detail. It must be confessed, however, that the number of analyses thus far made are very far from sufficient to show at all completely the variations in the composition of our food materials. Nevertheless, the figures in the tables give a tolerably accurate idea of the composition of the food materials named.

DIGESTIBILITY OF FOODS.

The question of the digestibility of foods is a very complex and difficult one, and I have noticed that the men who know most about it are generally the least ready to make definite and sweeping statements as to the digestibility of this or that kind of food material. One great difficulty is the fact that what we ordinarily call the digestibility of a food includes several different things, the ease with which it is digested, the time required for digesting it, and the proportions of its several constituents that are digested.

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*Since the above tables were prepared, the results of a large series of analyses of American grain and milling products have been reported by Mr. Clifford Richardson, of the United States Agricultural Department. While these are a most important contribution to our knowledge of the subject, the main results do not differ widely from those here given.

The ease of digestion and the suitableness of a food to the digestive organs of a given person are physiological rather than chemical questions, and, fortunately for myself, do not come within the scope of this lecture. The actual amounts digested are capable of more nearly accurate determination. Indeed, the percentage of the more important constituents of various foods actually digested by domesticated animals of different species, breeds, sexes, and ages, and under varying circumstances, has been a matter of active experimental investigation in the German agricultural experiment stations during the past twenty years. Briefly expressed, the method consists in weighing and analyzing both the food consumed and the solid excrement, which latter represents the amount of food undigested, the difference being the amount digested.

Such experiments upon human subjects, however, are rendered much more difficult by the necessity of avoiding complex mixtures of foods, in order that the digestibility of each particular food or food ingredient may be determined with certainty, and the fact that it is not easy to continue to eat the same kind of food long enough for a satisfactory experiment. No matter how palatable a simple food may be to a man at first, it has been found that it will almost certainly become repugnant to him after two or three days. In consequence, the digestive functions are disturbed, and the accuracy of the trial is impaired. In the experiments in question, it was quite exceptional to find persons in any walk of life who could continue to eat large quantities of simple, plain food for tolerably long periods—a fact, by the way, which strikingly illustrates and emphasizes the importance of a varied diet in ordinary life.

Notwithstanding the difficulties referred to, a considerable number of experiments have been carried out, the majority in the physiological laboratory of the University of Munich, Germany. The results of a number of these experiments are concisely set forth in the following table:

PERCENTAGES OF UNDIGESTED MATTERS IN FOOD MATERIALS.

KIND OF FOOD EATEN.	Percentage of the Dry Food lost as Excrement.	PERCENTAGES OF THE—	
		*Nitrogen of the Foods which go to Waste in the Excrement.	Carbohydrates of the Foods which go to Waste in the Excrement.
Lean beef	5 or 6	2 or 3	—
Fish (haddock)	5 or 6	2 or 3	—
Eggs	5¼	2½	—
Milk	8 to 10	7 to 12	—
Milk, with cheese	6 to 11	3 to 5	—
Rice	4	25	1
Potatoes	9⅛	32	7½
Fat bacon, with some bread and beef	8½ to 9¼	12 to 14	2 to 6
White bread (wheat)	3¾ to 5½	19 to 26	1 to 1½
Coarse rye bread (black bread)	15	32	11
Cabbage	15	18½	15½
Yellow beets	21	39	18

* Protein.

Thus the men upon whom the experiments were made digested all but five or six per cent of the whole dry matter (water-free substance) of the lean beef and the fish, and all but two per cent of their protein (nitrogen). Of the water-free substance of milk, a somewhat larger proportion passed through the body undigested. The vegetable foods were much less completely digested; the coarse rye bread and the beets, were, in this sense, the least digestible of all.

A. Costs of Protein.

A subject that has received but little attention in this country, though it has become a vital one in Europe, and is becoming so with us, is the cost of the nutritive material of our foods. The relative cheapness or dearness of different foods must be judged by comparing, not the prices per pound, but the costs of the actual nutrients. In making such comparisons, the cost may be assumed to fall, not upon the inedible portions and the water, but solely upon the three classes of nutrients, the protein, fats, and carbohydrates. The relative physiological values of the nutrients in different foods depend upon (1) their digestibility, and (2) their functions and the proportions in which they can replace each other in nutrition. An accurate physiological valuation is, in the present state of our knowledge, at least, impracticable. The pecuniary cost of the nutrients are, however, more nearly capable of approximation.

Various methods have been proposed for computing the relative pecuniary costs of the nutrients of foods, none of which, however, are entirely beyond criticism. The following, based upon German estimates of the relative costs of protein, fats, and carbohydrates, is perhaps as satisfactory as any. They are those of Professor König.

From extended comparisons of the composition and market prices of the more important animal and vegetable food materials, such as meats, fish, flour, etc., those which serve for nourishment and not as luxuries, and form the bulk of the food of the people, it has been estimated that a pound of protein costs, on the average, five times as much, and a pound of fats three times as much as a pound of carbohydrates; that, in other words, these three classes of nutrients stand related to each other, in respect to cost, in the following proportions:

Assumed ratios of costs in staple foods:	Protein	5
	Fats	3
	Carbohydrates	1

Perhaps a study of foods and prices in our markets might lead to a different scale of valuations, but this will serve our present purpose.

Suppose a pound of beef to cost 25 cents, and to contain 25 per cent of inedible matters, bone, etc., 45 per cent of water, and 30 per cent of nutritive substance, upon which latter—the bone and water being assumed to be without nutritive value—the whole cost comes. The 30 per cent or $\frac{30}{100}$ pounds of nutritive substance thus costs 25 cents, or at the rate of 83½ cents per pound. If now we leave out of account the minute quantities of carbohydrates and the mineral matters, the whole cost will fall upon the protein and fats. Assuming these to cost in the ratio of 5:3 and the amounts in the meat to be: protein 15 per cent, and fats 14¼ per cent, an easy computation will show the protein to cost 106 cents and a pound of fats 64 cents.*

Of the different nutrients, protein is physiologically the most important, as it is pecuniarily the most expensive. For these reasons the cost of protein in different food materials may be used as a means of comparing their relative cheapness or dearness, as is done in the following table. The figures represent the ordinary prices per pound and the corresponding costs of protein, in specimens of food materials obtained in New York and Middletown, Connecticut, markets. Though the number of specimens is too small for reliable averages, the figures, taken together, doubtless give a tolerably fair idea of the relative costliness of the nutrients in the different classes of foods. It will of course be understood that the computations make allowance for the costs of the other nutrients, the fats and the carbohydrates, though for the sake of brevity the latter are omitted from the table.

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*The methods of computing the cost of protein and the amounts obtained for 25 cents in different foods are as follows:

1. *Cost of protein:* Suppose we wish to learn the costs of the nutrients in wheat flour, containing 11.1 per cent of protein, 1.1 per cent of fat, and 75.4 per cent of carbohydrates, and costing 4 cents a pound.

Let x represent the cost of a pound of carbohydrates in cents. Then, by the ratio of costs assumed above, a pound of fats would cost $3x$ cents and a pound of protein $5x$ cents. 100 pounds of the flour will cost 400 cents, and will contain 11.1 pounds of protein, 1.1 pounds of fats, and 75.4 pounds of carbohydrates. We shall have—

$75.4x$ cents=cost of 75.4 pounds of carbohydrates.
$3.3x$ cents=cost of 1.1 pounds of fats.
$55.5x$ cents=cost of 11.1 pounds of protein.

Total, $134.2x$ cents=cost of 100 pounds of flour=400 cents.

Whence $x=$ 3 cents, cost of carbohydrates per pound.
$3x=$ 9 cents, cost of fats.
$5x=$15 cents, cost of protein.

2. *Amounts of nutrients obtained for 25 cents:* At 4 cents per pound for the flour, 25 cents will pay for 6.25 pounds. By the percentage composition above given 6.25 pounds of flour will contain 0.69 pound of protein, 0.07 pound of fats, and 4.71 pounds of carbohydrates, which are the amounts of nutrients obtained for 25 cents.

COMPARATIVE COST OF PROTEIN IN FOOD MATERIALS.

FOOD MATERIALS.	At Prices per pound	Cost of Protein per pound
Meats.	Cents.	Cents.
Beef, sirloin	25	106
Mutton, leg	22	91
Beef, sirloin	20	86
Mutton, leg	20	82
Mutton, side	20	73
Beef, round	18	70
Mutton, leg	16	66
Corned beef, lean	18	66
Beef, round	15	59
Corned beef, lean	15	55
Smoked ham	18	51
Smoked ham	15	43
Corned beef, lean	10	36
Beef, flank*	15	36
Beef, neck	8	33
Pork,* very fat, salted	16	83
Pork,* very fat, salted	12	25
Fish.		
Salmon	100	511
Oysters, 50 cents per quart	25	336
Oysters, 40 cents per quart	20	269
Oysters, 30 cents per quart	15	202
Lobsters	12	202
Salmon	30	153
Flounder	8	149
Shad	12	99
Bluefish	10	98
Lake trout	15	92
Halibut	15	85
Haddock	7	84
Mackerel	10	79
Cod	8	75
Canned salmon	20	70
Shad	8	66
Cod	6	56
Salt mackerel	12.5	53
Salt cod	7	43
Mackerel	5	40
Salt cod	6	37
Salt cod	5	31
Alewives	3	27
Smoked herring	6	24
Dairy Products and Eggs.		
Eggs, 40 cents per dozen	28	157
Eggs, 25 cents per dozen	18	101
Eggs, 15 cents per dozen	11	62
Milk, 8 cents per quart	4	61
Milk, 7 cents per quart	3.5	53
Cheese, whole milk	18	37
Cheese, whole milk	13	27
Cheese, skimmed milk	8	18
Vegetable Foods.		
Wheat bread	8	38
Rice	9	38
Potatoes,* $1 per bushel	1.7	30
Wheat bread	6	29
Potatoes,* 75 cents per bushel.	1.38	22
Wheat bread	4	19
Beans, 13 cents per quart	6.5	18
Wheat flour	4.5	17
Wheat flour	4	15
Oatmeal	5	15
Beans, 10 cents per quart	5	14
Potatoes,* 50 cents per bushel.	0.85	14
Wheat flour	3.5	13
Cornmeal	3	12

* Containing little protein, the chief value being in other ingredients.

Thus the nutrients of vegetable foods are, in general, much less costly than in animal foods. The animal foods have, however, the advantage of containing a larger proportion of portein and fats, and the protein, at least, in more digestible forms.

Among the animal foods, those which rank as delicacies are the costliest. By the above calculations, the protein in the oysters costs from $2 to $3, and, in salmon, rises to over $5 per pound. In beef, mutton, and ham, it varies from 106 to 43 cents; in shad, bluefish, haddock, and halibut, the range is about the same; while in cod and mackerel, fresh and salted, it varies from 75 to as low as 31 cents per pound. Salt cod and salt mackerel are nearly always, fresh cod and mackerel often, and even the choicer fish, as bluefish and shad, when abundant, cheaper sources of portein than any but the inferior kinds of meat. Among meats, pork is the cheapest; but salt pork or bacon has the disadvantage of containing very little portein.

It is well worth the noting that oatmeal is one of the cheapest foods that we have; that is, it furnishes more nutritive material in proportion to the cost, than almost any other. Cornmeal is indeed cheaper, but the oatmeal has this great advantage over cornmeal and wheat flour, that it has more protein. Of course, if we are to eat large quantities of lean meat—

and most of us, I think, eat more than is best for our health, saying nothing of our purses—the extra protein in the oatmeal is of little consequence to us. But if one wishes to economise in his food, oatmeal, rightly cooked, affords an excellent material therefor.

One of the most interesting things brought out in the table is the cheapness of the staple vegetable food materials, such as potatoes, wheat flour, cornmeal, oatmeal, and beans.

B. AMOUNTS OF NUTRIENTS OBTAINED FOR 25 CENTS IN DIFFERENT FOOD MATERIALS.

The above method of computing the relative expensiveness of different kinds of food materials is, as I have said, open to the objection that it is based upon a certain assumed ratio of relative costs of protein, fats, and carbohydrates, which may or may not be right in any given case. A method free from these objections consists in computing how much of the several nutrients may be obtained for a given sum, for instance, 25 cents, in different food materials. This is done in the following table:

Amount of Nutrients furnished for twenty-five cents in Food Materials at ordinary prices.

FOOD MATERIALS.	At Prices per pound	TWENTY-FIVE CENTS WILL PAY FOR—				
		Total Food Material.	NUTRIENTS—POUNDS.			
			Total.	Protein.	Fats.	Carbohydrates.
Meats.	Cents.	Pounds.				
Beef, sirloin	25	1.00	.29	.15	.14	--------
Mutton, leg	22	1.14	.34	.17	.17	--------
Beef, sirloin	20	1.25	.37	.19	.18	--------
Mutton, leg	20	1.25	.38	.19	.19	--------
Beef, round	18	1.39	.40	.29	.11	--------
Mutton, side	20	1.25	.46	.17	.29	--------
Beef, round	15	1.67	.49	.35	.14	--------
Beef, neck, whole	8	3.13	.92	.48	.44	--------
Pork, salted, fat	16	1.56	1.23	.04	1.19	--------
Pork, salted, fat	12	2.08	1.65	.06	1.59	--------
Fish.						
Salmon	100	.25	.06	.04	.02	--------
Oysters, 50 cents per quart	25	1.00	.12	.06	.02	.04
Oysters, 35 cents per quart	17.5	1.42	.17	.09	.02	.06
Salmon	30	.83	.19	.12	.07	--------
Bluefish	10	2.50	.27	.25	.02	--------
Shad	12	2.08	.29	.19	.10	--------
Cod	8	3.13	.34	.33	.01	--------
Mackerel	10	2.50	.35	.25	.10	--------
Canned salmon	20	1.25	.44	.25	.19	--------
Shad	8	3.13	.44	.29	.15	--------
Cod	6	4.17	.45	.44	.01	--------
Salt cod	7	3.57	.58	.57	.01	--------
Salt mackerel	12.5	2.00	.60	.30	.30	--------
Mackerel	5	5.00	.71	.51	.20	--------
Salt cod	5	5.00	.82	.80	.02	--------
Smoked herring	6	4.17	1.21	.84	.37	--------
Dairy Products and Eggs.						
Butter	30	.83	.73	--------	.73	--------
Milk, 8 cents per quart	4	6.25	.74	.21	.23	.30
Milk, 7 cents per quart	3.5	7.14	.84	.24	.26	.34
Cheese, whole milk	18	1.39	.90	.38	.49	.03
Cheese, whole milk	15	1.67	1.08	.45	.59	.04
Cheese, skim milk	8	3.13	1.69	1.20	.21	.28

Amount of Nutrients furnished for twenty-five cents in Food Materials, etc.—Continued.

Food Materials.	At Prices per pound ----	Twenty-five Cents will Pay for—				
		Total Food Material.	Nutrients—Pounds.			
			Total.	Protein.	Fats.	Carbohydrates.
Vegetable Foods.	Cents.	Pounds.				
Wheat bread	8	3.13	2.08	.28	.06	1.74
Wheat bread	6	4.17	2.75	.37	.07	2.31
Potatoes, $1 per bushel	1.7	3.24	3.04	.27	.03	2.74
Beans, 10 cents per quart	5	5.00	3.96	1.16	.11	2.69
Potatoes, 75 cents per bushel	1.25	18.00	4.13	.36	.04	3.73
Wheat bread	4	6.25	4.15	.56	.12	3.47
Oatmeal	5	5.00	4.48	.76	.36	3.36
Wheat flour	4.5	5.55	4.83	.62	.06	4.15
Wheat flour	4	6.25	5.44	.69	.04	4.71
Potatoes, 50 cents per bushel	0.85	26.47	6.06	.53	.05	5.48
Indian meal	3	8.33	6.90	.70	.29	5.91

Professor Atwater, since the delivery of the above address, has submitted the following appendix for publication:

In the above address, as given, were included some statements regarding daily rations, which constituted a practical application of the principles above set forth. At the request of Mr. Edward Atkinson, who desired the material to incorporate in an address to be given by himself as Chairman of the Section of Economic Science and Statistics of the American Association for the Advancement of Science, I dictated the substance of the statements to a stenographer, being too much pressed for time to give to the preparation the care properly belonging to an article intended for publication, and appended a translation of a German dietary, and some estimates for daily rations of food materials of the composition of those given in the tables, the latter prepared by my assistant, Mr. Rockwood. The matter in this form is reproduced here.

STANDARDS FOR DAILY RATIONS.

In answer to the question, "What should be the standard for a daily ration?" it may be said that the ordinarily accepted standards are estimated in terms of the three most important classes of the nutritive ingredients, or nutrients of food: (1) Protein, or albuminoids; (2) fats; (3) carbohydrates.

Our best information upon this subject comes from Germany, accurate observations and experiments having been there made by Liebig, Moleschott, Pettenkofer, Voit, and others. Payen, in France, and Frankland, Playfair, Lawes, and Gilbert, in England, have also made most valuable contributions to the knowledge upon this subject.

I cannot forbear noting the fact, however, that very little attention appears to have been paid to the results of these experiments on this side of the Atlantic, or, for that matter, in England; even in some of the best text-books in chemistry and physiology, those which are looked upon as most authoritative, are too apt to pass the subject over most superficially, or almost to ignore it.

The standard rations assumed by Professor Voit, of Munich, are more commonly accepted than any others, and are most frequently quoted and followed in estimating dietaries. The following are standards adopted by the Munich school of physiological chemists who follow Voit:

Standards for Daily Rations.

	Protien—Grams.	Fats—Grams.	Carbohydrates—Grams.
Children to 1½ years	20–36	30–45	60–90
Children from 6 to 15 years	70–80	37–50	250–400
Laboring man at moderate work	118	56	500
Laboring man at severe work	145	100	450
Laboring woman	92	44	400
Aged man	100	68	350
Aged woman	80	50	260

We are, of course, to understand that these figures represent only general averages. It is assumed that for an ordinary laboring man, doing an ordinary amount of work, the amounts of nutrients above given will suffice, and that with them he will hold his own; and that any considerable excess above these quantities will be superfluous. But, of course, no one expects any given man to adjust his diet exactly to this standard; he may need more, and may perhaps get on with less. He may eat more fats and less carbohydrates, or he may consume more protein, if he is willing to pay for it. If, however, he eats much less protein, and keeps up his muscular exertion, he will, in Professor Voit's opinion, be apt, sooner or later, to suffer.

Protein is the costliest of the food ingredients, and hence the one which, from the pecuniary standpoint, most needs to be economized; and since, furthermore, its work of building up muscles, tendons, and the like, cannot be done by either of the other classes of nutrients; since, in other words, it is very expensive, one of the first questions in constructing an economical ration is, "What is the least amount of protein that will suffice?" This question cannot be answered exactly until we know more than we now do about the demands of different organisms under different conditions. The subject needs more thorough and experimental study. But we may find an approximate answer in results of observation and experiments already on record.

To resume briefly, in computing standard rations to supply sufficient food at the minimum cost, we have to learn—

First—What is the minimum quantity of the most costly ingredient, viz., protein?

Second—What proportion of nutrients is contained in the food materials we are to use?

But lack of complete data, as well as time for discussion, precludes further reference to the matter.

EXAMPLES OF GERMAN RATIONS.

Of late, a great deal of attention has been paid in Germany to this particular subject of the food of the people and the best ways to economize it. I noticed a statement in a scientific journal a few days ago that Bismarck had engaged Professor König to prepare a series of schedules of rations for ordinary German laboring people, which I suppose actually means that one of the departments of the Prussian Government has engaged Professor König, who is one of the principal authorities in this line, to carry out this enterprise. Numerous attempts have already been made in this same direction. I have before me, for instance, a little brochure of about one hundred pages, by Dr. Meinert, entitled "*Wie nährt man sich gut und billig?*" or "How can one feed himself well and economically?" That this is regarded as trustworthy is evidenced by the fact that it was honored with a prize, offered by an association and awarded by a committee, consisting of Professors Voit, Forster, and Beneke, three of the best known German authorities in this specialty. It tells in plain language about foods, their constituents, the proportions of the several nutrients in various foods, the relative cheapness and dearness of different food materials as shown by the comparison of their composition with their price, and with the rest gives schedules of daily rations for families. There are three of these schedules, the first intended for a family with an annual income of 800 marks, or $200, of which it is assumed that 60 per cent will be expended for food. The second is for a family with an income of 1,100 marks, or $275, and the third for one of 1,500 marks, or $375 per annum. The outlay for the food of each of the last two is to be about 53 per cent of the income. As the largest of the three incomes would be counted very small with us I have selected the schedule corresponding to it rather than either of the others for the translation which I have caused to be made and include herewith.

DIETARY FOR A FAMILY FOR TWO WEEKS.

The following dietary is calculated for a family consisting of father, mother, and two children of ten and twelve years of age. The annual income for the support of the family is taken at 1,500 marks, or $375, of which 53 per cent, 800 marks, or $200 per year, which would make 220 pfennigs, or 55 cents per day, is to be spent for food. It is assumed that the mother and two children will require as much nutritive material in their food as two laboring men, so that the family of four persons will be equal in their demand to three laboring men. Dr. Meinert further assumes that to earn so large a sum as 1,500 marks per year, more than ordinarily hard work will be required, and hence, following Professor Voit's figures for rations, he provides for a ration with nutrients a little in excess of the standard for a laboring man at moderate work. Professor Voit's standards for an ordinary laboring man doing moderately hard work, and for the same man at severe work, are stated below, and with them Dr. Meinert's standard for the family in question.

Nutrients in Daily Ration.

NUTRIENTS.	PROFESSOR VOIT'S STANDARDS.		Dr. Meinert's Standard for Family with 1,500 marks per year.
	For Laboring Men at Moderate Work.	For Laboring Men at Severe Work.	
Protein	118 grams (0.26 lb.)	145 grams.	120 grams.
Fats	56 grams (0.12 lb.)	100 grams.	70 grams.
Carbohydrates	500 grams (1.10 lb.)	450 grams.	500 grams.

As the family are counted equivalent to three "laboring men," the 220 pfennigs allowed for food per day must pay for three rations, which gives 73.3 pfennigs per ration. The problem, then, is to draw up a bill of fare for each day, which shall furnish a minimum of 120 grams, or 0.27 pound, of protein; 70 grams, or 0.15 pound, of fats, and 500 grams, or 1.10 pounds of carbohydrates, for 73.3 pfennigs, or 18¾ cents per day, in food materials, such as a German laborer may properly use, and at such prices as he must pay for them.

In accordance with German usage provision is to be made for breakfast, dinner at midday, lunch (*Vesperbrot*) in the afternoon, and supper (*Abendessen*). The following is Dr. Meinert's outline of the bill of fare for two weeks:

Bill of Fare for Fourteen Days.

Day.	Breakfast.	Dinner.
First	Coffee, milk, rolls, black bread, butter.	Fresh haddock with mustard sauce and potatoes.
Second		Beef stew with kohlrabi and potatoes.
Third		Sausage with millet, milk, and beer.
Fourth		Mutton and beans.
Fifth		"*Fleischgraupen*" with bacon and beer.
Sixth		"*Klöse*" (dumplings) with fruit.
Seventh		Dried codfish with sourkrout, peas, and beer.
Eighth		Hashed meats with potato soup.
Ninth		Sausage (*Blutwurst*) with lentils and beer.
Tenth		Liver and potato salad.
Eleventh		Beefsteak with cabbage and potatoes.
Twelfth		Herring, potatoes, and beer.
Thirteenth		Pork with cabbage and potatoes.
Fourteenth		Liver with spinach, potatoes, and beer.

Day.	Lunch.	Supper.
First	Coffee and milk. Bread and butter.	Meat and vegetable soup.
Second		Cheese and beer.
Third		Onion soup.
Fourth		Potato soup.
Fifth		Pea soup.
Sixth		Herring and beer.
Seventh		Buttermilk soup.
Eighth		Meat and vegetable soup.
Ninth		Potatoes and curd.
Tenth		Cheese and beer.
Eleventh		Bread and milk soup.
Twelfth		Meat and vegetable soup.
Thirteenth		Cheese and beer.
Fourteenth		Oatmeal in buttermilk.

The details of the daily bills of fare are given by Dr. Meinert in the forms translated beyond. The quantities are given in the metric weights and measures current in Germany. It will be remembered that the kilogram consists of 1,000 grams and equals about 2.2 pounds; that the gram is nearly 15.5 grains, and, roughly speaking, 450 grams make a pound and 28 grams an ounce. The liter is 1,000 cubic centimeters, a little over a quart; a liter of water weighs one kilogram. The mark consists of 100 pfennigs, and is worth about 25 cents, so that the pfennig is one quarter of a cent. Translating these into our own weights and measures would, I think, rather detract from than add to their clearness and value. In their present form they are simple, but would by recalculation become more complex. In the summary at the end, the quantities and prices are given in American weights and money.

In translating, I will for convenience speak of the first and second breakfast together as breakfast. The midday and evening meals we will call dinner and supper, and will follow Dr. Meinert's example in including the afternoon lunch with breakfast.

In this dietary, Dr. Meinert gives first a general schedule for breakfast and lunch, which (or its equivalent) is to serve for each of the fourteen days. The schedule for dinner and supper for each several day is given by itself. It is assumed that the material left over at one time will serve for another, and that thus the evening meals may be filled out from what is left at breakfast or dinner.

Breakfast and Lunch.

AMOUNT OF FOOD AND PRICE.	Amount in grams	Price per kilo or liter in pfennigs	Price of amount indicated in pfennigs	AMOUNT OF— Protein. Grams	AMOUNT OF— Fats. Grams	AMOUNT OF— Carbohydrates. Grams
Four wheat rolls	290	--------	12	15	2	148
Rye bread	1,500	24	36	90	9	750
Coffee and coffee substitutes	60	--------	9	5	1	28
One and a quarter liters skimmed milk	1,250	8	10	38	6	50
Butter	100	240	24	--------	98	--------
Salt	75	20	1.5	--------	--------	--------
Two liters beer	2,000	12	24	10	--------	160
	--------	--------	116.5	158	116	1,136
Per head and day	--------	--------	38.8	53	39	379
There remains for dinner and supper	--------	--------	34.5	67	31	121
Total per head per day	--------	--------	73.3	120	70	500

It will be observed that the cost of each material is stated, with the amounts of nutrients it contains. By "per head" is understood for one laboring man. It will be remembered that the mother and two children were assumed to require as much as two laboring men.

Here follow details of dinner and supper, and summary for each of the fourteen days.

BILL OF FARE FOR DINNER AND SUPPER FOR FOURTEEN DAYS.

AMOUNT OF FOOD.	Amount in grams	Price per kilo or liter in pfennigs	Price of the amount indicated in pfennigs	AMOUNT OF— Protein—Grams.	Fats—Grams	Carbohydrates—Grams	
Fresh haddock	500	80	40	60	5	8	FIRST DAY. *Dinner.*—Fresh haddock, with mustard sauce and potatoes. *Supper.*— Meat and vegetable soup.
Mustard	125	80	10	33	42	31	
Flour	50	40	2	6		35	
Fat (lard, butter)	60	130	8		57		
Potatoes	2,500	7	17.5	50	3	500	
"Fleischgemüse"*	125	200	25	40	22	44	
			102.5	189	129	618	
Per head			34.2	63	43	206	
For breakfast, lunch, etc.			38.8	53	39	379	
Total per head and day			73.0	116	82	585	
Beef	500	120	60	80	40		SECOND DAY. *Dinner.*— Beef stew. with kohlrabi and potatoes. *Supper.*—Cheese and beer.
Fat (lard, butter, etc.)	100	130	13		95		
Kohlrabi	1,000	15	15	27	2	86	
Potatoes	1,500	7	10.5	30	3	300	
Skim-milk cheese	300	50	15	120	21		
			113.5	257	161	386	
Per head			37.8	86	54	129	
For breakfast, lunch, etc.			38.8	53	39	379	
Total per head and day			76.6	139	93	508	
Millet	500	40	20	56	17	290	THIRD DAY. *Dinner.* — Sausage, with millet, milk, and beer. *Supper.*—Onion soup.
Skimmed milk	1,500	8	12	45	7	60	
Sausage	300	180	54	69	33	21	
Onions	150	10	1.5	4		12	
Fat	50	130	6.5		47		
Flour	150	40	6.0	17	2	105	
			100.0	191	106	488	
Per head			33.3	64	35	163	
For breakfast, lunch, etc.			38.8	53	39	379	
Total per head and day			72.1	117	74	542	
Mutton	500	120	60	75	50		FOURTH DAY. *Dinner.*—Mutton and beans. *Supper.*— Potato soup.
Beans	500	40	20	130	10	250	
Fat	100	130	13		95		
Potatoes	2,000	7	14	40	2	400	
			107	245	157	650	
Per head			35.6	82	52	216	
For breakfast, lunch, etc.			38.8	53	39	379	
Total per head and day			74.4	135	91	595	

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*"Fleischgemüse," soup made from a mixture of preserved South American meat and vegetables, especially recommended by Dr. Meinert.

BILL OF FARE—Continued.

AMOUNT OF FOOD.	Amount in grams	Price per kilo or liter in pfennigs	Price of the amount indicated in pfennigs	AMOUNT OF—			
				Protein—Grams.	Fats—Grams	Carbohydrates—Grams	
							FIFTH DAY.
"Fleischgraupen"	450	150	68	100	10	300	*Dinner.* — "Fleischgraupen," with bacon and beer.
Bacon	125	160	20	3	98	------	
Peas	300	50	15	67	6	150	*Supper.*—Pea soup.
Lard	40	170	7	------	37	------	
Spices	------	------	2	------	------	------	
	------	------	112	170	151	450	
Per head	------	------	37.3	57	50	150	
For breakfast, lunch, etc.	------	------	38.8	53	39	379	
Total per head and day	------	------	76.1	110	89	529	
Wheat flour	600	45	27	66	6	438	SIXTH DAY. *Dinner.*—Dumplings, with fruit.
Potatoes	1,500	7	10.5	30	1.5	300	
Wheat rolls	72	------	3	4	------	35	
Fat	100	130	13	------	95	------	
Fruit	250	80	20	8	2.5	113	
Sugar	30	100	3	------	------	27	
Herrings	260	7	21	52	32	5	*Supper.*—Herring and beer.
	------	------	97.5	160	137.0	918	
Per head	------	------	32.5	53	46	306	
For breakfast, lunch, etc.	------	------	38.8	53	39	379	
Total per head and day	------	------	71.3	106	85	685	
Dried codfish	250	140	35	198	3	------	SEVENTH DAY. *Dinner.*— Dried codfish, with sourkrout, peas, and beer.
Sourkrout	1,000	18	18	10	2	46	
Peas	300	50	15	67	3	150	
Fat	100	130	13	------	95	------	
Buttermilk, two liters	2,000	6	12	51	15	15	*Supper.* — Buttermilk soup.
	------	------	93	326	118	211	
Per head	------	------	31	109	39	70	
For breakfast, lunch, etc.	------	------	38.8	53	39	379	
Total per head and day	------	------	69.8	162	78	449	
Beef	200	120	24	32	16	------	EIGHTH DAY. *Dinner.* — Hashed meats, with potato soup.
Pork	100	130	13	14	10	------	
Mutton	125	120	15	20	8	------	
Fat	60	130	8	------	56	------	
Spices and vegetables	40	3	------	------	------	------	
Potatoes	3,000	7	21	60	3	600	
"Fleischgemüse"	125	200	25	40	22	46	*Supper.* — Meat and vegetable soup.
	------	------	106	166	115	646	
Per head	------	------	35.3	55	38	215	
For breakfast, lunch, etc.	------	------	38.5	53	39	379	
Total per head and day	------	------	74.1	108	77	594	

BILL OF FARE—Continued.

AMOUNT OF FOOD.	Amount in grams	Price per kilo or liter in pfennigs	Price of the amount indicated in pfennigs	AMOUNT OF—			
				Protein—Grams.	Fats—Grams	Carbohydrates—Grams	
Sausage	300	160	48	35	34	78	NINTH DAY.
Lentils	500	50	25	125	10	250	*Dinner.*—Sausage and lentils.
Vinegar			3				
Curd	250	40	10	43	8	7	*Supper.* — Potatoes and curd.
Potatoes	2,500	7	17.5	50	3	500	
			103.5	253	55	835	
Per head			34.5	84	18	278	
For breakfast, lunch, etc.			38.8	53	39	379	
Total per head and day			73.3	137	57	657	
Liver and lungs	500	80	40	97	27	10	TENTH DAY.
Lard	40	1.7	6.8		36		
Wheat rolls	156		6	6	1.5	78	
Flour	40	40	1.6	4	0.5	28	*Dinner.*— Liver, with potato salad.
Onions	50	10	0.5	1		4	
Pepper and vegetables	60		1.6				
Potatoes	2,500	7	17.5	50	2.5	500	
Vinegar and oil			5				
Cheese	300	50	15	120	21		*Supper.*— Cheese and beer.
			94.0	278	88.5	620	
Per head			31.3	93	29	207	
For breakfast, lunch, etc.			38.8	53	39	379	
Total per head and day			70.1	146	68	586	
Beefsteak	400	160	64	88	20		ELEVENTH DAY.
Lard	60	170	10		57		*Dinner.*— Beefsteak, with cabbage and potatoes.
Red cabbage	1,000	15	15	18	2	70	
Potatoes	1,500	7	10.5	30	1	300	
Bread	300	24	7	18	3	150	*Supper.*— Bread and milk soup.
Skimmed milk	1,500	8	12	45	7	60	
			118.5	199	90	580	
Per head			39.5	63	30	193	
For breakfast, lunch, etc.			38.8	53	39	379	
Total per head and day			78.3	116	69	572	
Three herrings	260	*7	21	52	32	5	TWELFTH DAY.
Potatoes	3,000	7	21	60	3	600	
Skimmed milk	1,000	8	8	30	4	40	
Flour	50	40	2	5	0.5	35	*Dinner.* — Herring, potatoes, and beer.
Onions	50	10	0.5	1	0.5	3	
Lard	50	170	8.5		47		
Spices			1.5				
"Fleischgemüse"	125	200	25	40	22	46	*Supper.* — Meat and vegetable soup.
			87.5	188	109.0	729	
Per head			29.2	63	36	243	
For breakfast, lunch, etc.			38.8	53	39	379	
Total per head and day			68.0	116	75	622	

*At seven pfennigs each.

BILL OF FARE—Continued.

AMOUNT OF FOOD.	Amount in grams	Price per kilo or liter in pfennigs	Price of the amount indicated in pfennigs	AMOUNT OF—			
				Protein—Grams.	Fats—Grams	Carbohydrates—Grams	
Pork	500	130	65	67	60	------	THIRTEENTH DAY. *Dinner.*— Pork, with white cabbage and potatoes. *Supper.*— Cheese and beer.
Cabbage	1,000	10	10	20	1	66	
Potatoes	2,000	7	14	40	2	400	
Lard	50	170	8.5	------	47	------	
Cheese	300	50	15	120	21	------	
	------	------	112.5	247	131	466	
Per head	------	------	37.5	82	44	155	
For breakfast, lunch, etc.	------	------	38.8	53	39	379	
Total per head and day	------	------	76.3	135	83	534	
Liver	500	100	50	175	15	------	FOURTEENTH DAY. *Dinner.*— Liver, with vegetables, potatoes, and beer. *Supper.*—Oatmeal in buttermilk.
Spinach	1,000	15	15	20	2	60	
Potatoes	2,000	7	14	40	2	400	
Fat	80	130	10	------	75	------	
Oatmeal	150	60	9	23	9	96	
Buttermilk	1,000	6	6	34	10	10	
	------	------	104	292	113	566	
Per head	------	------	35	97	38	189	
For breakfast, lunch, etc.	------	------	38.8	53	39	379	
Total per head and day	------	------	73.8	150	77	568	

RATIONS OF COMMON FOOD MATERIALS ESTIMATED TO CONTAIN THE AMOUNTS OF NUTRITIVE INGREDIENTS IN THE STANDARD RATION, WITH COST OF EACH.

The following rations have been calculated by my assistant, Mr. Rockwood, mostly from results of analyses made in our laboratory in behalf of the Smithsonian Institution (United States National Museum), as a basis for explanations of its food collection. No other considerable series of analyses of American food materials has, so far as I am aware, been executed; hence, though the data are meager, they are the best available. They are probably not far out of the way. Mr. Rockwood has endeavored to construct one series of rations at a very low cost, 11 or 12 cents a day, or thereabouts, and another series at higher rates, up to 45 cents a day. Of course, it is not proposed that any person or family should attempt to follow these exactly; for that matter, the chemist will evidently have to consult the cook if he proposes to construct dietaries to accord with ordinary tastes. The rations will, nevertheless, help to show how foods may be economized, and what proportions would suffice for the nourishment of ordinary people, and what are the constituents and costs of the different materials. They are estimated to supply very nearly the amounts of nutrients in Voit's standard ration for a laboring man at moderate work:

DAILY RATIONS COMPUTED TO FURNISH NUTRIENTS EQUIVALENT TO THOSE OF STANDARD FOR LABORING MAN AT MODERATE WORK.

Standard Ration: Protein (118 grams), 0.26 pound; fats (56 grams), 0.12 pound; carbohydrates (500 grams), 1.10 pounds.

A. *Daily Rations Costing 12 Cents or Less.*

FOOD MATERIALS.		
Kinds.	Amounts.	Costs.
No. 1.		
Beef, neck	½ lb.	4 cts.
Beans	¼ "	¾ "
Potatoes	2 "	2 "
Oatmeal	¼ "	1¼ "
Butter	¾ oz.	1½ "
Rye flour	½ lb.	1¼ "
Total		10¾ cts.
No. 2.		
Beef, shin	½ lb.	3 cts.
Oatmeal	½ "	2½ "
Cornmeal	½ "	1 "
Milk, one half pint	½ "	2 "
Potatoes	1 "	1 "
Butter	1 oz.	2 "
Total		11½ cts.
No. 3.		
Herring	½ lb.	3 cts.
Oatmeal	¼ "	1¼ "
Potatoes	1 "	1 "
Wheat flour	1 "	4 "
Butter	1/16 "	2 "
Total		11¼ cts.
No. 4.		
Beef, shin	½ lb.	3 cts.
Potatoes	3 "	3 "
Wheat flour	½ "	2 "
Beans	⅛ "	¾ "
Butter	1/16 "	2 "
Sugar	1 oz.	1 "
Total		11¾ cts.
No. 5.		
Alewives	1 lb.	3 cts.
Potatoes	2 "	2 "
Cornmeal	½ "	1½ "
Wheat flour	½ "	2 "
Butter	1/16 "	2 "
Total		10½ cts.
No. 6.		
Smoked herring	½ lb.	3 cts.
Potatoes	1 "	1 "
Beans	¼ "	1½ "
Wheat flour	1 "	4 "
Butter	1/16 "	2 "
Total		11½ cts.
No. 7, for Three Men.		
Beef, neck	½ lb.	4 cts.
Beef, shin	½ "	3 "
Alewives	1 "	3 "
Beans	¼ "	¾ "
Milk, one half pint	½ "	2 "
Rye flour	½ "	1¼ "
Wheat flour	½ "	2 "
Oatmeal	¾ "	3¾ "
Cornmeal	1 "	3 "
Potatoes	5 "	5 "
Butter	2¾ oz.	5½ "
Total for three men		33¼ cts.
Total for one man		11 "
No. 8, for Four Men.		
Beef, neck	½ lb.	4 cts.
Beef, shin	½ "	3 "
Rye flour	½ "	1¼ "
Sugar	1½ oz.	1 "
Oatmeal	½ lb.	2½ "
Herring	1 "	6 "
Beans	10 oz.	2⅝ "
Wheat flour	2½ lb.	10 "
Potatoes	7 "	7 "
Butter	3¾ oz.	7¼ "
Total for four men		44⅝ cts.
Total for one man		11⅞ "

B. *Daily Rations Costing from 12 to 15 Cents.*

Food Materials.		
Kinds.	Amounts.	Costs.
No. 9.		
Liver	½ lb.	5 cts.
Potatoes	1 "	1 "
Butter	1/16 "	2 "
Cornmeal	1 "	3 "
Bread	½ "	3 "
Total		14 cts.
No. 10.		
Beef, shin	½ lb.	3 cts.
Bread	½ "	2½ "
Potatoes	1 "	1 "
Oatmeal	¼ "	1¼ "
Cornmeal	½ "	1½ "
Butter	1/16 "	2 "
Sugar	1/32 "	¼ "
Milk	¼ "	2 "
Total		13½ cts.
No. 11.		
Salt cod	½ lb.	3½ cts.
Oatmeal	½ "	2½ "
Cornmeal	½ "	1 "
Milk	½ "	2 "
Butter	1 oz.	2 "
Potatoes	2 lb.	2 "
Total		13 cts.
No. 12.		
Pork	⅛ lb.	2 cts.
Beans	¼ "	1¼ "
Salt cod	¼ "	2 "
Potatoes	1½ "	1½ "
Bread	1¼ "	6 "
Total		14¾ cts.
No. 13.		
Salt codfish	½ lb.	3½ cts.
Salt pork	⅛ "	2 "
Crackers (pilot)	1 "	5½ "
Peas	½ "	3 "
Total		14 cts.
No. 14.		
Fresh mackerel	¾ lb.	4½ cts.
Potatoes	1 "	1 "
Cracked wheat	½ "	3 "
Cornmeal	½ "	1½ "
Beans	¼ "	¾ "
Butter	1 oz.	2 "
Total		12¾ cts.
No. 15.		
Beef, neck	½ lb.	4 cts.
Potatoes	1 "	1 "
Cornmeal	½ "	1½ "
Rye bread	1 "	4 "
Butter	1 oz.	2 "
Total		12½ cts.
No. 16, for Three Men.		
Liver	½ lb.	5 cts.
Beef, shin (soup)	½ "	3 "
Salt codfish	½ "	3½ "
Salt pork	2 oz.	2 "
Crackers (pilot)	1 lb.	5½ "
Peas	½ "	3 "
Sugar	½ oz.	¼ "
Milk	¼ lb.	2 "
Oatmeal	¼ "	1¼ "
Potatoes	2 "	2 "
Bread	1 "	6 "
Butter	2 oz.	4 "
Cornmeal	1½ lb.	4½ "
Total for three men		42 cts.
Total for one man		14 "
No. 17, for Four Men.		
Beef, shin	½ lb.	3 cts.
Fresh mackerel	¾ "	4½ "
Salt cod	¾ "	5½ "
Pork	2 oz.	2 "
Beans	½ lb.	1½ "
Wheat bread	1¾ "	8½ "
Cracked wheat	½ "	3 "
Cornmeal	1½ "	4½ "
Oatmeal	¾ "	4 "
Butter	3 oz.	6 "
Milk	¾ lb.	4 "
Potatoes	5½ "	5½ "
Sugar	½ oz.	¼ "
Total for four men		52¼ cts.
Total for one man		13 "

C. *Daily Rations Costing from 15 to 20 Cents.*

Food Materials.		
Kinds.	Amounts.	Costs.
No. 18.		
Beef, neck	¼ lb.	2 cts.
Salt cod	¼ "	1½ "
Potatoes	1 "	1 "
Bread	½ "	3 "
Cabbage	2 oz.	¼ "
Turnips	2 "	⅛ "
Carrots	2 "	⅛ "
Oatmeal	2 "	⅜ "
Milk, one pint	1 lb.	3½ "
Rice	2 oz.	1⅛ "
Sugar	2 "	1¼ "
Cornmeal	¼ lb.	¾ "
Soda crackers	1 oz.	¾ "
Butter	1 "	2 "
Total	--------	18 cts.
No. 19.		
Round steak	½ lb.	8 cts.
Milk	½ "	2 "
Butter	1 oz.	2 "
Cheese	1 "	1 "
Bread	½ lb.	2½ "
Potatoes	1½ "	1½ "
Sugar	1½ oz.	1 "
Turnips	½ lb.	½ "
Cornmeal	⅛ "	1 "
Total	--------	19½ cts.
No. 20.		
Beef, shin	¼ lb.	1½ cts.
Fresh cod	½ "	4 "
Oatmeal	⅛ "	½ "
Bread	½ "	3 "
Butter	1 oz.	2 "
Potatoes	1 lb.	1 "
Boston crackers	2 oz.	1¼ "
Milk, one half pint	½ lb.	1½ "
Cornmeal	½ "	1½ "
Total	--------	16¼ cts.
No. 21.		
Beef, neck	½ lb.	4½ cts.
Milk	½ "	2 "
Cheese	1 oz.	1 "
Bread	1 lb.	5 "
Potatoes	2 "	2 "
Sugar	1½ oz.	1 "
Total	--------	15½ cts.
No. 22.		
Pork	½ oz.	½ cts.
Beans	3 "	2 "
Fresh cod	½ lb.	3½ "
Potatoes	1½ "	1½ "
Rye bread	1 "	4 "
Butter	1 oz.	2 "
Sugar	2 "	1½ "
Milk	1 lb.	3½ "
Total	--------	18½ cts.
No. 23, for Three Men.		
Round steak	½ lb.	9 cts.
Beef, neck	¼ "	2 "
Fresh haddock	½ "	3½ "
Salt cod	¼ lb.	1½ cts.
Fat pork	½ oz.	½ "
Beans	3 "	2 "
Milk	2½ lb.	9 "
Cheese	1 oz.	1 "
Butter	3 "	6 "
Wheat bread	1 lb.	5 "
Rye bread	1 "	4 "
Soda crackers	1 oz.	¾ "
Oatmeal	2 "	⅝ "
Cornmeal	7/12 lb.	1¾ "
Rice	2 oz.	1⅛ "
Carrots	2 "	⅛ "
Turnips	10 "	⅝ "
Potatoes	4 lb.	4 "
Cabbage	2 oz.	¼ "
Sugar	5½ "	3½ "
Total for three men	--------	46¼ cts.
Total for one man	--------	15 "
No. 24, for Three Men.		
Round steak	½ lb.	9 cts.
Beef, shin (soup)	¼ "	1½ "
Fat pork	1 oz.	1 "
Fresh cod	½ lb.	4 "
Cheese	1 oz.	1 "
Milk	1 lb.	3½ "
Beans	½ "	5 "
Peas	¼ "	2½ "
Wheat bread	1½ "	7½ "
Rye bread	½ "	2 "
Boston crackers	2 oz.	1¼ "
Oatmeal	2 "	½ "
Cornmeal	⅝ lb.	2½ "
Potatoes	2½ "	2½ "
Turnips	½ "	½ "
Butter	3 oz.	6 "
Sugar	3½ "	2¼ "
Total for three men	--------	53½ cts.
Total for one man	--------	18 "
No. 25, for Four Men.		
Round steak	½ lb.	9 cts.
Beef, shin (soup)	¼ "	1½ "
Beef, neck	¼ "	2 "
Fresh cod	1 "	8 "
Salt cod	¼ "	1½ "
Pork	½ oz.	½ "
Beans	½ lb.	5 "
Wheat bread	1½ "	8 "
Rye bread	1 "	4 "
Boston crackers	2 oz.	1¼ "
Soda crackers	1 "	¾ "
Oatmeal	1 lb.	5 "
Cornmeal	¾ "	2¾ "
Rice	2 oz.	1⅛ "
Potatoes	5½ lb.	5½ "
Cabbage	2 oz.	¼ "
Turnips	2 "	⅛ "
Carrots	2 "	⅛ "
Butter	3 "	6 "
Milk	2½ lb.	7½ "
Sugar	3½ oz.	2¼ "
Total for four men	--------	71⅝ cts.
Total for one man	--------	18 "

D. *Daily Rations Costing from 20 to 45 Cents.*

FOOD MATERIALS.		
Kinds.	Amounts.	Costs.
No. 26.		
Beef (soup)	¾ lb.	6 cts.
Potatoes	1 "	1 "
Bread	½ "	3 "
Cabbage	2 oz.	¼ "
Turnips	2 "	⅛ "
Carrots	2 "	⅛ "
Oatmeal	2 "	⅝ "
Milk	1 lb.	3½ "
Rice	2 oz.	1⅛ "
Sugar	2 "	1¼ "
Cornmeal	¼ lb.	¾ "
Soda crackers	2 oz.	¾ "
Butter	1 "	2 "
Total		20½ cts.
No. 27.		
Shad	¼ lb.	4 cts.
Eggs	¼ "	4 "
Oatmeal	2 oz.	⅝ "
Rice	2 "	1½ "
Beans	¼ lb.	1½ "
Bread	½ "	3 "
Potatoes	1 "	1 "
Soda crackers	¼ "	2½ "
Sugar	2 oz.	1¼ "
Butter	1 "	2 "
Total		21⅜ cts.
No. 28.		
Beef, round	¼ lb.	4¼ cts.
Shad	½ "	4 "
Peas	¼ "	2½ "
Potatoes	½ "	½ "
Cauliflower	½ "	6 "
Rice	¼ "	3 "
Oyster crackers	½ "	5 "
Sugar	¼ "	2½ "
Butter	1 oz.	2 "
Total		29¾ cts.

FOOD MATERIALS.		
Kinds.	Amounts.	Costs.
No. 29.		
Mutton, leg	¼ lb.	4 cts.
Oysters	½ "	10 "
Peas	⅛ "	1¼ "
Potatoes	1 "	1 "
Oatmeal	¼ "	1 "
Rice	¼ "	2½ "
Bread	½ "	3 "
Oyster crackers	¼ "	3 "
Butter	1½ oz.	3 "
Total		28¾ cts.
No. 30.		
Turkey	½ lb.	18 cts.
Fresh pork	2 oz.	1⅝ "
Hominy	½ lb.	2 "
Potatoes	1 "	1 "
Beans	¼ "	1½ "
Rye bread	½ "	3 "
Milk	1 "	3½ "
Total		30⅝ cts.
No. 31.		
Beef, sirloin	¼ lb.	5 cts.
Potatoes	½ "	3 "
Bread	1 "	6 "
Butter	1 oz.	2 "
Sugar	¼ lb.	2½ "
Beans	¼ "	2½ "
Skimmed milk	1 "	2 "
Oysters	½ "	20 "
Total		43 cts.
No. 32.		
Salmon	¼ lb.	10 cts.
Beef, sirloin	¼ "	5 "
Oysters	½ "	10 "
Dried beef	1 oz.	1 "
Wheat bread	½ lb.	3 "
Oatmeal	2 oz.	⅝ "
Rice	2 "	1½ "
Potatoes	½ lb.	½ "
Sweet potatoes	1 "	6 "
Cabbage	2 oz.	¼ "
Turnips	2 "	⅛ "
Butter	2 "	2 "
Milk	1 lb.	3½ "
Sugar	2 oz.	1½ "
Total		45 cts.

[Since the delivery of the above address, Hon. Carroll D. Wright, the President of the convention, has asked me in what form the statistics of dietaries of the people would be most valuable as data for determining the actual amounts of nutritive material consumed. The following brief statement suggests some points in answer to this question.

If the pecuniary cost of the dietary is the only, or the principal matter to be considered, the statement of the total amounts of meats, vegetables, and other food materials purchased, may suffice. If, however, it be desired to determine the actual nutritive value of the dietary, and with this to answer questions whether the amounts of the several classes of nutrients, protein, fats, and carbohydrates, are insufficient, excessive, or properly adapted to the needs of the consumer, the statements should be of such sort as to permit a reasonably accurate estimate of the actual amounts of nutrients in food. It is likewise important to know whether all the food is actually eaten, or whether a part of it is wasted.

It is accordingly essential that the amounts of each of the food materials should be stated in pounds. The legal bushel for certain articles may have one weight in one State, and a different weight in another State. When a chemist is told that the dietary includes so many bunches of onions, or cans of corn, though he may know the average composition of corn and onions as they ordinarily grow, he is at a loss to tell how much of the nutritive materials the dietary contained, because of this lack of definiteness in the statement of the amounts of materials. If the statement is made that a family consumed so many pounds of beef in a year, he is again unable to estimate the amounts of nutrients it contained, because there are such wide differences in the composition of beef of various kinds, and especially in the portions or "cuts," as the butchers call them, from the different parts of the same animal. A glance at the tables of composition of food materials, given in the address above, will illustrate this point. I have been much perplexed in some attempts toward calculating the nutritive materials in dietaries, from the fact that the amounts and kinds of materials are not stated with such definiteness as to permit an at all satisfactory estimate of their composition. In brief, if it is desired to ascertain the actual dietetic value of the food, or its fitness for the needs of the consumer, or if we seek an answer to the question as to whether it contains nutrients in proper amounts and proportions, and how it might be altered so as to make it better for his nourishment or for his purse, the weight of each food material, and as complete a description as possible of each article, should be given. That an accurate estimate of any given dietary is possible, even with data in the form suggested, is, of course, not to be assumed. The only way to determine the exact amount of nutrients, is to analyze the food actually consumed. But, if the statistician's figures and descriptions are reasonably accurate and detailed, an at least approximate calculation of the composition is possible.]

Address delivered at the Fourth Annual Session of the National Convention of Chiefs and Commissioners of the various Bureaus of Statistics of Labor in the United States, held at Trenton, New Jersey, June 1, 2, and 3, 1886.

THE TENEMENT HOUSE PROBLEM.

[Paper by Charles F. Wingate.]

The problem of housing the poor is everywhere forcing itself upon public attention. In London and in New York, in Paris and in Chicago, in Berlin and in San Francisco, statesmen and sanitarians, religious teachers and political economists are deeply concerned to decide how and where the masses are to live. It is a problem peculiar to modern civilization. The cities of the past were less crowded than those of our time and were spread over a larger area. Their ruins show no poor quarter. If the houses were small they were low and had few occupants. The people led an outdoor life. There was little if any squalor; every rich man supported a legion of dependents, and the idle population was fed by the State. The necessities of living were not great, and those who were not soldiers or slaves could easily earn a subsistence. The few industries were carried on in houses, and there were no manufactories or lofty tenements.

The feudal town sprang up near to a castle or to a monastery. The modern city has grown up next to a factory or warehouse. Our domestic habits have been revolutionized by the growth of industries. Constantinople, Venice, Amsterdam, London, Dublin, and Marseilles were all marts of trade. But the great cities of the nineteenth century are manufacturing centers. In these days the mechanic must live near his work. The merchant or manufacturer can no longer lodge his employés under his own roof, while the latter cannot afford to ride any distance to homes in the suburbs. Competition brings high rents and overcrowding. Lofty buildings darken the narrow and crooked streets, which our ancestors' lack of foresight provided. The atmosphere is polluted by smoke; the soil fouled by sewage. The thousands of horses needed for traffic and pleasure and the innumerable street lamps are sources of special contamination. Next comes the jerry-contractor with his flimsy "speculation" houses, and the sordid landlord willing to cram any number of tenants under one roof in defiance of decency and cleanliness. Finally, as a last element in the evolution of the modern city, we have political misrule and corruption, resulting in high taxes, deficient water supply, ill paved streets, poor sewers and docks, unregulated drinking saloons, too few parks, and inadequate sanitary and police administration. Through these influences we have the east end of London and the tenement quarters of New York and other American cities.

CONCENTRATION OF POPULATION IN CITIES.

The present century has been marked by a steady movement of population away from the country. In 1790 only one thirtieth of the population of the United States resided in cities.

Within the half century between 1830 and 1880 the proportion of the inhabitants of the United States who live in cities, rose from less than 7 per cent of the whole number to 22 per cent, and the State censuses of the present year show that the tide sets so strongly in the same direction that by 1890 about a quarter of the people will be found in less than four hundred cities of the country.

In New York State fully one half of the population are thus centered. The mass of these people are unskilled workers. Of the foreign emigrants to this country only twenty-eight per cent have any occupation. The thrifty and industrious ones seek the rural sections, while the poor, incapable, and improvident prefer city life, with its chance jobs and abundant almsgiving. Charitable societies tempt the idle and improvident to seek the city. The clannish instincts of the poor and the pleasures of city life also draw them from the country. This class of people are forced to be content with the cheapest and poorest accommodation, while they are too ignorant and degraded to appreciate better quarters. The lack of rapid transit has hindered the building up of suburbs, which has been further retarded by malaria, the curse of rural communities. In the healthy environs, professional and business men are preferred to mechanics as residents. Rents and land are high, and the cost of communication with the delays of fog and ice repel laboring men of small means who must get to their work promptly in all seasons. Until recently tenement houses have been constructed with reckless disregard of sanitary needs. Property interests have had most weight with Legislatures and the Courts. Tenement house owners, with their powerful allies, the liquor dealers, have been able to resist reform, while it has been nobody's business to champion the helpless tenants.

TENEMENTS IN FACTORY TOWNS.

The mass of the working classes in the United States are housed either in small or large tenements. Individual homes in separate dwellings are the exception outside of Philadelphia and small factory towns. It is rare for a mechanic to own his dwelling in the larger towns and cities. Leased houses are the rule, and their occupants lack the interest to keep them neat and healthful which is inspired by private ownership. In many of the smaller factory towns, especially in New England, employés have been able to buy a homestead, but generally speaking, workingmen are not saving, and their earnings are too small to permit them to purchase a house, unless with the aid of building associations. Such associations have succeeded in many localities, and where workmen are thrifty and intelligent enough to appreciate their value, they have been successful.

The sanitary faults common to tenements in factory towns are lack of abundant water supply and drainage—dependence on wells and cesspools—carelessness in storing and removing garbage, and general shiftlessness. Cellars in such houses are damp and ill ventilated. Windows of sleeping and living rooms are seldom opened in cold weather, and the value of fresh air, bathing, and cleanliness is but little appreciated.

As a result of an investigation into the manner of living of about four hundred families of workingmen in Massachusetts, the following conclusions were arrived at:

First—That among the families visited, those containing the greatest number of child workers occupy the most crowded rooms and the inferior class of tenements.

Second—That about three quarters of the workingmen's homes which we visited are in good condition, as regards locality and needful sanitary provisions, but:

Third—That nearly one half of the unskilled laborers live in the inferior tenements.

(Report Massachusetts Bureau of Labor Statistics, 1875. See also report on factory system, 1884.)

NEW YORK TENEMENTS.

The tenement system has developed most rapidly in New York City. The first tenements were converted private dwellings, but about 1,840 special buildings were put up to accommodate from 13 to 20 families. These were styled "double-deckers," from having a central hall and four families on each floor. Gradually rear buildings were erected with a small intervening court for eight or ten additional families. Thus on an ordinary city lot, 25x100, from 50 to 75 persons will be packed. Each family had a living room with windows opening on the street or yard, and one or two dimly lighted interior bed-rooms. The halls and lower rooms are always dark, the cellars foul and damp, and the privies offensive. The average "double-decker" costs $12,000, exclusive of the land, and it pays a high return. Where landlords are sordid and neglectful, or where tenants are filthy and careless, they rapidly decay. It is not surprising that the bulk of the prevalent sickness, mortality, poverty, and crime is found in such buildings.

By a census under the supervision of the Mayor and Fire Department in 1883, it appears that New York contains 102,624 buildings, of which 78,368 are used as dwellings, and the remainder for business exclusively. Of these, 185 only are considered absolutely fire-proof: 65 being dwellings and 120 business structures; 3,742 dwellings and 3,278 business buildings *are more than four stories in height*, and not a few in both classes reach ten stories.

Of the total number of buildings used as dwellings, but 49,565 are occupied exclusively for this purpose, the remainder, 28,803, being partly given up to business. The total number of dwellings occupied by but one family each is only 32,096, very much less than one half of the entire number.

In 10,314 houses there are at least two families; in 16,992 one family occupies each floor, and in 18,966 houses there are more than one family on each floor. The average number of occupants to each dwelling is from 17 to 20. There are 15,798 rear buildings—nearly one sixth of the entire number—of which 5,199 are used for dwellings.

The report of the New York Tenement House Commissioner presents the following percentages regarding the quality of the buildings, the plumbing, and the tenements themselves:

	Buildings.	Plumbing.	Tenements.
Good	34.17	2.08	36.87
Fair	46.78	58.83	54.36
Bad	17.73	39.37	9.65

In May, 1885, the results of one week's house-to-house inspection by the sanitary inspectors were reported by Dr. Day, as follows: Of 322 tenement houses inspected, 151 were in bad condition, 113 in fair condition, and only 58 in good condition. The percentage of deaths in tenements increased from 51.11, in 1870, to 55.50 in 1884. The percentage would be greater were it not that the sick occupants of tenements go to charity hospitals, to which their deaths are credited. In the district known as the "Bend," on Mulberry Street, the mortality of children under five years is over 65 per cent.

The following table shows the deaths in New York, the total deaths in tenements, and the percentages:

YEAR.	Total Deaths.	In Tenements.	Percentage.
1880	38,866	17,667	45.45
1881	38,609	21,171	54.83
1882	37,951	20,690	54.51
1883	33,982	18,359	54.20
1884	35,044	19,801	56.50

In the upper part of the city, 50 per cent of the tenements were built before 1881; in the middle part, 66 to 80 per cent, and in the lower wards, 98 per cent. The sanitary condition of the older houses has greatly improved in the past five years.

TENEMENTS IN OTHER CITIES.

The tenement system is steadily spreading in most cities and towns north of Mason's and Dixon's line throughout the Union. The increasing value of land, and the development of the factory system have been the chief agents in its development. In Boston, Chicago, Cincinnati, St. Louis, Pittsburg, and even in smaller cities and towns, the double-decker is becoming the chief habitation of the masses. If it is true that "as the houses are, so are the people," grave fears must be entertained of the results of this method of housing the poor.

Boston, with a population of nearly 400,000, has some 20,000 people who occupy a grade of tenement houses, and of these nearly one half inhabit buildings which are classed as unsanitary. As the health department has no control over the erection of new buildings, the tenements recently erected show no improvement over their predecessors. When a building is complete it comes under their control, but only partial improvements can then be made and at very great expense.

Dr. E. M. Snow, health officer at Providence, reports a steady increase in the crowding of population there, the average number of persons to each dwelling ranging from 6.72 to 8.85. In Rochester the Board of Health not long since condemned a two-story tenement which contained 70 persons, and was entirely shut out from light and air by surrounding buildings. Numerous cases of rheumatism, malaria, and sore throat were cited in proof of its unhealthfulness. In Erie, Pennsylvania, the health officer, Dr. E. W. Germar, says: "Overcrowded buildings are breeding places for disease. Five cases of smallpox occurred in one house, and as the landlord refused to procure city water, the occupants had to get a supply from their neighbors, and thus exposed the latter to infection." These statements show to what an extent the tenement system is spreading, even in smaller towns.

CHICAGO TENEMENTS.

According to the census of 1880, Chicago contained in round numbers 503,000, making 97,000 families, averaging 5.19 persons to a family, and occupying 61,000 dwellings, averaging *8.24 persons* to a dwelling. 4,394 tenements having 42,904 rooms, contained 48,343 occupants, including 15,577 children under 15, or an average of 12 persons to a house. There are not *over 18,000* families living in their own houses, about 50,000 Anglo-

Americans live in cleanly places in the vicinity of their places of employment, 50,000 Germans live for the most part in small separate houses, 40,000 Scandinavians are somewhat crowded, and 100,000 Irish are for the most part accommodated with a house to each family; 15,000 Poles, 20,000 Bohemians, and 4,500 Italians huddle together, the Italians being, as usual, the filthiest and most utterly regardless of health and decency. This crowding is mainly a matter of choice and keeping up of old habits. Thousands of frame houses of all sizes have become untenantable through sagging of sills, doors, window frames, and other parts, also the rotting of wooden floor timbers placed too near the ground, fouling of wooden drains, and from other causes.

Owing to the scarcity of low priced quarters, the miserable rookeries are crowded, in many instances to double their lawful capacity. The appalling accounts of destitution in New York and London are paralleled in Chicago.

In 1883 there were 1,142 so called flats erected, which rented at from $15 to $125 per month, and entirely beyond the means of mechanics, clerks, or the middle classes of merchants' employés. Through the unflagging zeal and efficient workings of the health department, the new buildings lately erected in Chicago show but few defects, whereas, after 3,400 examinations of old houses, 2,800 notices for the correction of nuisances were served.

As Wendell Phillips remarks, "There seems to be something destructive to civilization in our great cities. But for the steady tide of fresh life and virtue from the country, all the great cities would decline in power and population. A social and physical canker eats out the heart of men and women when massed together."

The crying evils of tenement house life or squalor, discomfort, intemperance, herding like cattle, filth, chronic disease, sweeping epidemics and decimation by death, the little children being the chief victims, family disruption, growth of immorality and vicious habits, and the creation of and fostering of crime.

Cigar making and tailoring, which are largely carried on in tenements, are specially destructive to health. Consumption is almost unknown among the Hebrews in London, but it decimates their unfortunate fellow believers in the Hebrew quarters of New York and Chicago. Finally the results of unsanitary conditions are cumulative, houses built on speculation decay rapidly, and the second generation of tenants show the concentrated influence of bad air, dampness, lack of sunlight, and overcrowding. Intemperance is fostered by example and by the depression caused by breathing a foul atmosphere. Men keep their spirits up by pouring spirits down. Family ties are loosened. Parents abandon their children, who seek the street for companionship, and find there the best training for vice. Through the noble efforts of the Children's Aid Society, thousands of street Arabs have been transferred to homes in the great West, and the arrests for juvenile crime have been thus kept down, yet the gangs of toughs found throughout the tenement region are a terror to peaceable people, and defy the police.

These evils have become chronic. They are accepted as a matter of course by most persons. The terrible consequences which must follow their existence are ignored or forgotten. Yet their continuance is a blot upon civilization, a criticism upon Christianity.

EFFORTS TOWARD REFORM IN AMERICA.

The tenement system has reached its highest development in the metropolis. It has been studied more carefully there, and its features and effects are better known. The example of the metropolis in effecting reforms has usually been followed by other communities, despite local jealousies and antagonisms. It is therefore appropriate to give special prominence to the measures that have been taken in New York by the health authorities and private citizens to deal with the problem.

Three methods of reform have been applied in improving tenement houses: first building model houses, like the Peabody and Waterlow dwellings; second, renovating the existing defective houses on the plan followed by Miss Octavia Hill; and third, regulating the construction of new houses by the enforcement of health laws. This last plan has been productive of the best results.

Under its English charter, New York possessed almost no sanitary powers, and prior to the revolution there seems to have been no sanitary legislation worth mentioning in the whole State. Even down to 1804 all legislation affecting the public health, which related mostly to quarantine and the removal of nuisances, was limited in its application to the cities of New York, Hudson, and Albany, the only ones of note at that time in the State.

In 1820 an elaborate Act of forty-five sections provided for a Board of Health for the three cities just named and the navigable waters connecting them. It included a provision for health wardens to inspect dwellings and other buildings. After the cholera epidemic of 1832, local health boards were formed throughout the State. About 1850, the Common Council of New York and Brooklyn were each constituted Boards of Health, with the result of so mixing up politics with health administration, that in 1866 a change was made and the present Board of Health was created. The powers of the present Board of Health as regards buildings in New York, are thus set forth in the Sanitary Code.

The first provision, Section 17, is sufficiently comprehensive: "No person shall hereafter erect, or cause to be erected, or converted to a new purpose by alteration, any building or structure which, or any part of which, shall be inadequate or defective in respect to *strength, ventilation, light, sewerage, or of any other usual, proper, or necessary provision or precaution;* nor shall the builder, lessee, tenant, or occupant of any such, or of any other building or structure (within the right or ability of either to remedy or prevent the same), cause or allow any matter or thing to be done in or about any such building or structure, dangerous or prejudicial to life or health."

Sections 18 and 19 repeat much of the above and add that cellars or any apartment not at least two feet above the level of the sidewalk, are not to be used for sleeping purposes or as a place of residence, nor any apartment where the floor is damp or which is impregnated with unwholesome odors. Overcrowding is forbidden. "Adequate privies or water-closets" must be provided and kept in a cleanly condition. Rooms shall be "adequately lighted and ventilated."

Later provisions (Sections 190–3), adopted 1877, require that in hotels, lodging and tenement houses, proper traps shall be provided under all plumbing fixtures, and insists on the ventilation of privy vaults and the extension of soil pipes through and above the roof of every dwelling.

Section 201, adopted 1879, requires a permit from lodging houses. In short, the powers of the health authorities, so far as the law is concerned, are absolute, and justify the saying that the Shah of Persia intended to establish a similar Board in his dominions in order to increase his powers over his subjects. "Its control over nuisances," says Dr. Stephen Smith, "extends from the suppression of a crowing cock, which disturbs the slumbers of the sick, to the removal of the gigantic corporation of butchers, numbering two hundred and fifty establishments."

But many of the provisions of the Code are vague and too general. The language is not specific and leaves it to be disputed as to what is "adequate ventilation and light," and as to what are unwholesome odors and exhalations.

If strictly enforced to the letter, the sanitary Code would revolutionize the metropolis, but it would be impracticable to do this and also impolitic.

The tenement house Act, of 1867, was the first law passed directly relating to sanitary building in New York City. Its main provisions were:

1. The requiring in every interior sleeping room of two ventilating or transom windows, each having an area of three square feet, and communicating either with a hall or with a room opening on the external air.
2. A suitable ventilator on the roof over the hall stairway.
3. Fire escapes to be provided.
4. A water-closet or privy for every twenty occupants, and connected with the street sewer when such exists.
5. Cellars not to be used as dwellings without a special permit.
6. Garbage to be removed, and tenements kept clean and whitewashed twice a year.
7. Owners' and agents' names to be posted on the front of the building. *This has been a dead letter.*

These provisions enabled the health authorities to effect many reforms, but they were lacking in several particulars afterward supplied in subsequent amendments.

In the autumn of 1876, general attention was drawn to the evils of the New York tenement house system by several circumstances. Special investigations had been made by two leading charitable associations in the city into the condition of this class of buildings, and important facts relative to their defects made public in reports and through the press. In December of the same year, the sanitary engineer offered $500 in premiums for the best designs for a model tenement house on an ordinary city lot, 25 x100. In response to this competition two hundred and six designs were sent in by architects from all over the country and were exhibited at Clinton Hall. While the plans selected for approval came nearest of fulfilling the terms of the competition, the committee emphatically declared that in their view it was impossible to secure the requirements of physical and moral health within the narrow and arbitrary limits of the ordinary city lot. They, therefore, recommended further agitation to secure needed legislation regulating the number of occupants, the amount of open space, the provisions for light, ventilation, and cleanliness on sound sanitary principles.

Simultaneously with this announcement a mass meeting was held at the Cooper Institute, at which a committee of nine was nominated to suggest measures for reforming tenements.

Messrs. D. Willis James, W. Bayard Cutting, W. W. Astor, Cornelius Vanderbilt, R. T. Auchmuty, James Gallatin, Henry E. Pellew, F. D. Tappen, and C. P. Daly, who composed this committee, immediately proceeded to take steps toward the formation of a joint stock corporation for the erection of a block of model houses for workingmen; and also drafted a bill, with the aid of Judge Charles P. Daly and of Professor Chandler, amending the existing tenement house Act, which passed the Legislature in May. A very desirable clause imposing a license on all tenement houses was unfortunately stricken out and a clause inserted instead appropriating $10,000 to aid in enforcing the law.

The tenement house Act of 1867 did not prevent a building covering the whole lot. This was remedied by requiring a clear open space of not less than ten feet between the building and the rear line of the lot, and by authorizing the Board of Health to restrict the proportion of lot to be covered to 65 per centum whenever they deem it advisable, except in the case of corner lots.

The amended Act requires that every sleeping-room "shall have at least one window, with a movable sash, having an opening of not less than twelve square feet, admitting light and air directly from the public street or yard of the said house, unless sufficient light and ventilation shall be otherwise provided, in a manner and on a plan approved by the Board of Health." The Board are now approving plans where the inside rooms open upon shafts of the following dimensions: For houses not more than three stories in height, twelve square feet; not more than four stories, sixteen square feet; not more than five stories, twenty square feet.

Nothing was said about *overcrowding*. The Board are now authorized to require an owner to reduce the number of occupants of any tenement house that they consider to be overcrowded, until a minimum of six hundred cubic feet of air space is secured to each tenant.

The amended law also permits the Board of Health to require the presence of a responsible person, either the owner or a janitor or housekeeper, in every tenement house occupied by more than ten families.

For a number of years the Board of Health had been very much assisted in their work by the coöperation of the sanitary company of police. In 1876 they were deprived of their services, and the committee found that thereby the department was much crippled in its usefulness. A provision was incorporated into the new law which has secured to the Board the services of thirty policemen.

The practical results of the tenement reform movement and of the amended law are seen by a comparison between the condition of this class of dwellings now, and in 1880. The statistics show a decrease in the number of rear buildings and of bed-rooms depending on secondary light from living rooms or halls; also a great increase in the number of water-closets and school sinks and in the abandonment of privy vaults. New tenements and flats accommodating over thirty thousand families have been erected under proper supervision within three years, and these persons have been provided with decent, comfortable, and healthful homes. The law has also served to educate landlords, builders, and architects, so that now fully one third of the tenement plans presented to the Board of Health for approval are accepted without requiring a change. Not a tenement house has been built since the law was passed, in which air and light are wholly lacking in any room occupied as a living or sleeping room. The law requires that only 65 per cent of any lot shall be covered by the building, but it permits the remaining space for light and air to be divided into small courts and shafts, many of them mere slits or well holes, which are by no means equivalent to one large opening, especially as they have no provision for supplying air at the bottom, and thus do not permit a free circulation. It is idle to claim that a hole three or four feet wide and ten or twelve feet long and sixty feet deep, can afford much benefit to the lower rooms opening upon it, yet such narrow orifices are the sole reliance for light and air in many apartment houses as well as in tenements. I repeat, the tenements recently erected show a vast improvement over their predecessors. But if these buildings are allowed to go to ruin for want of repair and proper supervision, or if their tenants sub-let their rooms to boarders, they will rapidly deteriorate and in time become no better than their neighbors. The conclusion reached by the Tenement House Committee of Award, in 1879, that it is impossible to build a sanitary tenement to accommodate four families on a floor on the ordinary city lot, 25x100, is undeniable. As there is no prospect of any change being made in the size of these lots, the number of people in such houses must be limited by law, and some standard established similar to that enforced in the case of lodging houses, by which only a certain number of tenants can be accommodated under one roof.

Considerable opposition was at first met with in the enforcement of the amended law, but in the end this has turned to the public advantage. Foolish resistance to lawful authority ultimately strengthens that authority. Some owners, after their plans were approved by the Health Board, have coolly ignored them in constructing buildings, but when served with injunctions they have been glad to obey the law.

In the winter of 1878–79, the same public spirited gentlemen, who had obtained the amendments to the tenement house Act, secured the adoption of an amendment requiring that the plans of the plumbing and drainage of all new buildings must be submitted to the Board of Health for approval, and that the work itself shall be executed in conformity to their rules and subject to official inspection. It was also required that all plumbers should be registered at the Board of Health and licensed.

The value of this law is demonstrated almost daily, and the fact that its provisions are being adopted by other cities all over the country and are recommended for adoption abroad is the best proof of its merits. It prescribes, first, that all plumbing in new buildings must be executed according to certain rules; these rules have been drawn up in consultation with engineers, plumbers, and sanitarians of the highest standing, and hence represent the best thought and experience of our time in this line of work. They insist upon the use of good material and workmanship, having work accessible and as far as possible open to view, thorough ventilation and perfect trapping of fixtures, disconnection of all house drains from the sewer or cesspool, separation of the water and food supply from any source of pollution, abundant flushing, isolation of fixtures from living rooms, and, finally, suitable tests when the work is done to ensure that the plumbing is safe. As a result, we can say that all the new houses plumbed since the law went into operation are free from defects common to the mass of other dwellings, and which have so injuriously affected the health of their occupants.

What is now needed is to extend the application of this law so as to include alterations in existing buildings as well as new ones, more especially

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The following extract from the report of the Tenement House Commission, February, 1885, states what yet remains to be done in the way of investigation and reform in the metropolis:

"The work thus far accomplished by the Commission is only preliminary and much still remains to be done in the way of further investigation. It is desirable, first, that the condition of the two hundred or more lodging houses in the city should be inquired into and regulations suggested for their management. Second, that the sewerage of the tenement section of the city should be looked into, and a well digested plan presented for draining damp and low lying places, and for extending the sewer outlets to the end of the piers, instead of discharging into the slips. Third, the effect of recent legislation regulating the construction of new tenements needs to be studied with a special view to learning if the amended law is satisfactory in its results, and whether the tenements recently erected are of such a character as to be beyond the resources of the very poor. Lastly it remains to be determined, whether any restrictions should be placed upon the extension of the present tenement system which has become so potent a source of evil to health and morals."

The Commission laid a foundation by its labors, but it seems desirable that its work should be continued by another body composed of men with more special knowledge of the subject to be investigated, and less trammeled by special circumstances.

in large jobs of work costing over $100. The registration of plumbers should also be supplemented by a formal examination, before a competent Board, of each applicant for registration, so that the public can be able to distinguish between competent and incompetent workmen. At present the registration is a mere form, and all applicants stand on the same footing. If, however, they had to prove their qualifications by such an examination as suggested, the best plumbers would receive the credit they deserve, and the ignoramuses would have to be content to wait longer for a certificate or receive one of a second grade.

On March 12, 1883, a law was passed by the State Legislature prohibiting the making of cigars in tenement houses after October first. The chief objections to the tenement house cigar factories are that they are a sanitary nuisance, detrimental to education and an illegitimate interference to a legitimate trade. The mortality among children is excessive, as it must be when children from six years of age upward, spend most of their time stripping tobacco and bunch making. The school laws cannot be enforced, and the parents receive such low wages that they are compelled to make their children work. These places are also physically demoralizing, owing to bad ventilation, long hours of labor, the night and Sunday work, and eating food that is impregnated with tobacco. There are from 18,000 to 20,000 persons engaged in cigar making in the shops and factories in New York, and there are about 2,000 manufacturers. The tenement house manufacturers number 28 and they employ from 3,500 to 3,750 persons. The hours of labor in the factories are from 50 to 57 per week. In the tenement houses they vary from 70 to 100 hours per week, and the workers get from $1 50 to $2 per thousand less than is paid in the factories. Owing to their long hours they can make cigars faster than they are consumed, and that is why so many cigar makers are out of work in this city. Several physicians have strongly condemned this trade. They say that bronchial catarrh, pneumonia, inflammation of the lungs, and various nervous diseases are engendered in houses where such a trade is carried on. This law has since been declared unconstitutional, and has proven inoperative. It will doubtless be reënacted with modifications. Similar prohibition may be necessary in time with the manufacture of clothing in tenement houses, excepting under special restrictions, owing to the risks of contagious diseases being conveyed by the clothing to the public at large.

MODEL TENEMENTS IN NEW YORK AND VICINITY.

Improved tenements were built in New York by considerate property owners before the formation of the present Board of Health. In the report of the citizens' committee, of 1865, several of these buildings are described and commended. Mr. Sloane's model tenements, in Mulberry Street, were built in 1879, and his houses in Twenty-sixth Street, a little later. The Lorillard estate has erected many excellent tenements, and recently, Trinity Parish has been spurred on by the criticisms in the newspapers, to tear down many old rookeries and to erect fine buildings in their stead. The model tenements erected in this city and Brooklyn are a credit to the sagacity and philanthropy of their projectors, and should prove an example to other capitalists. But they cannot of necessity influence the status of the thickly crowded down town sections where reform is most needed. It is in crowded centers, like Mulberry and Jersey Streets, that better tenements are most wanted. Still more necessary is the renovation of existing tenements, such as has been accomplished by Miss Octavia Hill, in London, and by Mrs. Miles and Miss Ellen Collins, in New York. The moral effect of clearing out a filthy rookery, putting it in repair, and keeping it in good condition is wonderful. Here is a field of practical philanthropy which is open to all.

A majority of the improved tenements in New York are designed for a better class of occupants than the average, as is shown by the rents asked, ranging from $10 to $13 per month.

The very poor cannot, therefore, occupy these buildings, and their chief benefit has been in withdrawing the better paid tenants from other buildings and in the example they have set to capitalists. If, however, the vacancy created in the middle grade of tenements is immediately filled by other tenants of the mechanic class, no benefit is conferred upon the very poor. The effects of overcrowding are cumulative. Ten persons may safely occupy a house which would be unsanitary with twenty persons, and when the number is increased to forty, fifty, or sixty, the building becomes a fever nest. It is true that numbers of people may be maintained in health under one roof, as in prison and other institutions, on shipboard, in schools, and in hotels, under careful supervision, but without such supervision disease will surely creep in and epidemics develop.

IMPROVED DWELLINGS ASSOCIATIONS.

The improved dwellings association was incorporated July 19, 1879, with a capital of $250,000 in shares of $100, subsequently increased to $300,000. The original Trustees consisted of Messrs. R. T. Auchmuty, S. D. Babcock, W. B. Cutting, B. Dash, D. D. James, J. T. Metcalfe, M.D., H. E. Pellew, J. D. Pinchot, and Cornelius Vanderbilt; Mr. Cutting being President, Mr. Pellew, Vice-President and Secretary; and Mr. Babcock, Treasurer. Twenty-one lots were purchased between Seventy-first and Seventy-second Streets on First Avenue, the proximity to the East River and the elevated roads making the situation particularly desirable. The designs for the buildings themselves were not approved until every plan available in this country and England had been carefully examined, and the most competent architects consulted. The whole capital invested is $300,000; less five lots on East Seventy-first Street, valued at $20,000. The buildings are in the form of a hollow square, open on the west side, with courtyards on two levels connected by stairways, containing 218 family apartments, 12 stores, a range of separate cellars, laundries, bath-rooms, and a reading-room. The courtyards are asphalted, and when not occupied for drying clothes, make excellent playgrounds for the children. The three lower stories are supplied with water from the Croton. The three above depend on tanks supplied by a steam pump. The laundries are heated by steam, and lifts for raising coal and heavy articles open on every landing. The stairways are fire-proof. The apartments vary in size from two to four, or, with the laundry, to five rooms. Each of the 635 rooms has an outside window. They contain not far from 1,200 persons. The rents range from $7 75 to $14 75 per month, in gross, $30,500 per annum. The stores bring $5,000 additional. Reserving two per cent as a depreciation and contingency fund, a regular dividend of five per cent per annum can be declared.

The following description of the White Model Tenements, by R. R. Bowker, is taken from "Harper's Monthly Magazine:"

The first "Home Buildings," with forty dwellings and five stores, on Hicks Street, Brooklyn, five minutes' walk from South Ferry, were opened February, 1877, and were immediately filled. A second adjoining block, facing on Baltic Street, without any stores, was opened October, 1877.

Three "Tower Buildings," on the next block, very much finer in appearance than their neighbors, were opened in 1878 and 1879, the five aggregating 218 dwellings (1 of six, 25 of five, 147 of four, 45 of three rooms) and 15 stores, housing about 1,000 people. Each of these dwellings has living-room and scullery as well as bed-rooms, it being a cardinal principle, as in the Waterlow buildings, that each family shall have every requisite within its own private domain. Each family has also a storage bin for coal, etc., in the basement. The floors are planned alike from bottom to top, which permits a considerable saving by the duplication of materials. The buildings are of plain red brick; slate stairways wind up a shaftway, inclosed in a solid wall, opening *out of doors* upon balconies, whence each tenant has a separate entrance, and they terminate on a flat graveled roof for clothes drying and for play. In the "Tower Buildings" these shaftways constitute the tower, by which means, an element of beauty is introduced which the "Home Buildings" lack.

The cost of the first "Home Building" is given at about $7,000 for the four lots of land, and $30,000 for the building itself. The average price of dwellings throughout the buildings is $1 93 per week for four, and $1 48 for three-room dwellings, the lowest prices $1 50 and $1 30, these last being on the top floor, whence ten cents is added each floor downward. Each tenant is given an account card for the year, with the rules, and space for his weekly payments. Off these prices there is a discount of ten cents per week to those who pay four weeks rent at a time in advance, which one fourth of the tenants have done regularly, and there is a second rebate of ten per cent to tenants who, by remaining the full year, from May first to May first, save to the building the wear and tear of removals. The buildings have nevertheless earned a gross revenue of 13 per cent, of which in round numbers 2 per cent goes for taxes, 2 per cent for repairs, 1 per cent for expenses, while the net 8 per cent has been used, 2 per cent for improvement and extension, and 6 per cent for dividends. Here is a prospectus for wise capitalists.

Among the features of these buildings are a free reading-room and lending library, and free baths; the home sense of the tenants is also encouraged by permitting each to choose his own wall paper, within certain limits of cost. No rooms remain unlet. There is always a long list of applicants in advance for any vacancy.

The remarkable feature of Mr. White's miniature city is, however, the two blocks of dwelling houses known as "Warren Place." On a plot of ground 112 feet frontage on Warren and Baltic Streets, and running through 200 feet from street to street, this private way, with a tiny green its whole length, has been laid out, and on either side thirty-four little brick houses of two and three stories have been built. A cartway for ash-carts, grocery wagons, etc., runs in the rear of each set. The two-story and basement houses are 11½ by 32 feet, and have six rooms each. They cost but $1,100 each, exclusive of land, and they rent for $18 per month. They are pretty, and have every convenience. By this experiment, Mr. White has shown that even on city lots costing $4,000 for 25 by 100 feet, such dwellings can be profitably rented for about $250 a year. It is not yet, however, the pre-millennial age, and capital still prefers the drifting sands of Wall Street to this building on a rock.

It is unfortunate that no accurate data exists regarding the healthfulness of the improved tenements recently built. We may, however, infer from the low death rate in Mr. White's buildings in Brooklyn, and in those at Seventy-first Street and First Avenue, as well as in the transformed Gotham Court, and in Miss Collins' and Mr. Sloanes' tenements, that the buildings planned under the amended tenement law are comparatively healthful. They naturally attract a better class of occupants, and their newness leads the latter to take good care of them. Nevertheless, it cannot be denied that a building which accommodates sixteen families on an ordinary city lot, 25 by 100 feet, is not satisfactory, either from a moral or from a sanitary standpoint, and the conclusion of the committee of award in the sanitary engineer competition for a model tenement must be accepted as final. We have reached the point when we must forbid such massing of population on a limited area as is now permitted. Twenty-two thousand tenements have been erected in forty years, with the result already seen. It is high time to check this mushroom growth of workingmen's homes. The gentlemen who secured the amendments to the tenement house law, felt that they were getting all that it was politic to ask at that time from the Legislature, in view of the state of public opinion. As regards sanitary matter they reasoned that a slice of the loaf of reform was better than no bread. Now, they would ask to further restrict the size of buildings and to limit the area allotted to each person, as in the case of lodging houses.

No class of tenants will care for their surroundings unless under proper supervision. I have found in one of the most carefully constructed tenements, which was without a proper janitor, that the occupants would deface and damage the building, throw ashes and garbage on the stairs, splash slops over the floors near the sinks, and break and deface the plumbing fixtures. This illustrates the necessity of requiring every building to be in charge of a housekeeper. Again, tenants are fickle and will change from place to place upon the slightest pretext. Quite a number of tenants deserted a model tenement because they did not think the entrances were sufficiently convenient. New buildings naturally attract tenants, and owners of such are always eager to fill them up without careful inquiry into the character of the applicants. Those who may have been behindhand with their rents, take advantage of the opportunity to make a change.

The lowest rent attained in any of the model tenements of New York is $12 and $13 per month. It is apparent that such figures exclude the mass of the very poor, who pay $4 to $6 per month in the ordinary tenements.

GENERAL SUGGESTIONS.

The difficulty of reaching a satisfactory solution of the tenement problem can hardly be estimated. A Baptist clergyman, in London, says: "I have been at it for thirty years, and I confess I do not yet clearly see my way through it." Says another observer, after visiting the slums of the English metropolis: "This social problem is simply formidable. Never could silk skeins possibly get so entangled as this question. On a first investigation you curse the landlord; on a second, the landlord and the master; on a third, you are bound to say that the poor themselves are as bad as both, if not worse. No hasty examination of this subject will serve to master it. It demands long, careful, and thorough study, and by persons competent by training and experience to deal with it."

Reform must always be slow. If public sentiment is roused to fever pitch by sensational appeals, there is the inevitable reaction. Progress, which is not spasmodic, is the most sure. Mass meetings and strong newspaper editorials may be necessary to sustain demands upon the Legislature, but often better results can be obtained without such agencies. The Act to establish the New York State Board of Health was secured by Dr. Stephen Smith through correspondence from New York City, and without the necessity of a single visit to Albany. The amendments to the plumbing and tenement house laws were obtained by the quiet yet persistent efforts of Mr. James Gallatin, and other gentlemen connected with the sanitary reform society. On the other hand the agitation of the street cleaning bill is claimed to have done harm by stirring up the ire of members of the Legislature. Professor Adler gave a course of addresses on the homes of the poor. As a result, one of his hearers, who was a member of the Legislature, moved to appoint the late tenement house commission, and the measure was carried through. In reform movements there must always be a period of incubation and seed planting. The smallest agencies may yield the largest fruit. Every great movement, says Carlyle, was at first impossible. The anti-slavery agitation, which secured the emancipation of four millions of blacks, began in Garrison's small printing office. Mr. Bergh has revolutionized public opinion in regard to cruelty towards animals. Miss Louisa Lee Schuyler and Mrs. Lowell have transformed the charitable institutions of this State by their untiring efforts. And so with other reforms. The influence of a few earnest and disinterested persons is better than all the editorials of the combined press. Behind every great reform there is a live man or woman.

COMMON SCHOOLS AND THE LABOR QUESTION.

[Paper by Professor Alexander Johnston.]

It would be carrying coals to Newcastle if I should undertake to enlighten the distinguished body to which I speak on any of the phases of the labor question. The utmost which I can hope from this paper is to furnish a text from which some of the experienced gentlemen before me may give enlightenment to me, or to one another. To this end I propose to consider, very briefly, one of the many relationships of labor and the common school system.

I must begin by admitting that the aid and support of the mechanical or other industry of the country is by no means the main purpose of the common school system; that that system is primarily and mainly designed to furnish American citizens, to act as a mill, into one end of which goes a heterogeneous raw material, while at the other end comes out a product quite homogeneous and very well up to the normal American standard. Any treatment of the common school system must of course bear continually in mind its fundamentally political nature; and any argument which comes in contact with this fundamental feature must there find its final decision. But there may be propositions which, if established or admitted, may work a very great change from the present nature of our common school system, without in anywise touching the political nature of the system, or making themselves amenable to objections drawn from it. It seems to me that at least one such proposition may be found in the relations of the common school system to labor.

Let me assume your entire acquaintance with the "Wages Fund Theory," as expounded by Mr. Mill during his active life and surrendered by him not long before his death, and take up the modification or derivative suggested by Professor Cairnes, which is as familiar to you, commonly called his "Theory of Non-Competing Groups." For the sake of clearness, let me take his own terms.

"What we find, in effect, is not a whole population competing indiscriminately for all occupations, but a series of industrial layers superimposed on one another, within each of which the various candidates for employment possess a real and effective power of selection, while those occupying the several strata are, for all purposes of effective competition, practically isolated from each other." (Leading Principles, p. 66, American edition.)

Under the hands of Professor Cairnes the groups are limited to four: (1) the unskilled class; (2) the artisan class; (3) the higher industries; and (4) the professions. He assumes that competition is very complete within each class, that, for example, in the second or artisan class, to use his own words, "the man who is brought up to be an ordinary carpenter, mason, or smith, may go to any of these callings, or a hundred more, according as his taste prompts, or the prospect of remuneration attracts him; while he practically has no power to compete in those higher departments of skilled labor, for which a more elaborate education and larger training are necessary, for example, mechanical engineering." There are two ways of looking at this part of Professor Cairnes' theorem.

In the first place, I think the latter part of it is self evident. The lawyer who demands twice as large a fee as his prospective client desires to pay stands in very little apprehension of the competition of longshoremen or horse-car drivers. There is no competition from the lower groups upward. I am sorry that Professor Cairnes has not turned the glass around, to see whether there may not be seriously effective competition from the upward groups downward. I am as sure as I can be of anything that the failures which the law annually contributes to the country's stock of labor do compete very seriously with strata below. A car drivers' strike, for example, may be very seriously affected as to its results by hard times among lawyers, teachers, and journalists. While it is true, therefore, that there is no general competition, upward or downward, between groups, and very little competition upward among individuals, it seems to me that Cairnes' phrase, that the groups "are practically isolated from each other" is a trifle too sweeping, in that it ignores the fact that individual competition downward is far larger and more of a disturbing element than individual competition upward.

In the second place, and as more especially relating to this subject, it seems to me that Professor Cairnes is altogether too sweeping in assuming that competition is full and complete within a group; that, as he puts it, the "ordinary carpenter, mason, or smith may go to either of these callings, or a hundred more, according as his taste prompts, or the prospect of remuneration attracts him." It seems to me that this statement of facts is not close or accurate enough to do anybody any practical service. I am not dealing now with the familiar and often stated problems of the mobility of labor, the social or legal, natural or artificial, obstacles which prevent the workman from passing with freedom from one place or occupation to another. I am only questioning whether, even with perfect freedom of passage, it is so likely that "the ordinary carpenter, mason, or smith" *will* pass at will to any one of a hundred occupations in his group as to make his possible self transfer an important factor in the problem of wages. I doubt it very much, and it seems to me that a presentment of an opposing view will hardly need argument to sustain it.

Is it not true that Professor Cairnes has stopped too soon, that this analysis of the whole field of labor into groups is not enough, and that he should have carried the same process of analysis into the groups themselves? There are still, here and there in outlying districts, mechanics who are relics of the old time when men were obliged to turn with facility from one employment to another. My Connecticut carpenter of years ago could do almost anything for me, from building me a set of bookcases to repairing the kitchen range. He was an expert in nothing, but an exceedingly handy man to have in the neighborhood in almost any case. The time for such men is past. The training demanded for any great success in a modern trade is such as to almost unfit a man for anything very far removed from it by the nature of the trade. The facts are that the trained modern artisan is competent for complete competition in the trade which he has mastered, for incomplete competition or for competition after some additional instruction in certain groups of cognate trades, and is "practically isolated" from the other trades even of his own group. An increase of wages in the art and mystery of sash and blind making would not go very far before attracting house carpenters, and then, perhaps, carriage makers. It would have to go very far indeed before the tinsmiths or blacksmiths would become available as a relieving force; while the miners or fishermen would have to be left out of consideration altogether, although all these trades belong to the same one of Cairnes' groups, the artisan class. So, taking a reverse view and considering a possible strike, barring trades unionism in all its forms, the striking sash and blind makers would have much to fear from the house carpenters, a little less from the carriage makers, very much less from the tinsmiths or blacksmiths, and nothing at all from the miners or fishermen. It seems very evident from such considerations as these, which might be multiplied to almost any extent, that the Cairnes theory of non-competing groups requires at least this modification to make it conform to facts.

Now, it is an evident misfortune that the facts should be as they are. It would be much better for labor if the Cairnes assumptions were correct, if the "ordinary carpenter, smith, or mason" *could* turn with facility to any one of a hundred other employments; if, when oppressed in one trade, he could turn with a minimum of preparation to jewelry or plumbing, or some other occupation, as an easy recourse. And it is just here that I wish to make the connection between the actual condition of labor and the common school system.

Modern times have been marked by the rise of comparative studies, comparative philology, comparative theology, comparative law, and almost any number of similar sciences. In these, the great principles which underlie and are common to philology, theology, or law, in all ages and countries, have been collected and reduced to a scientific order, so as to form a new science, unknown before. My point is, and I think those who know workmen and their methods will bear me out in it, that the trades have never had anything like this comparative method applied to them by those who learn them. While it is impossible for modern necessities to tolerate the artisan who is jack of many trades and master of none, there are, I think, principles of a technical education which prepare a boy for no trade in particular, and yet give him the rudiments of any or all of the trades for which his natural capacity fits him. The experiment has been tried, I understand with success, in at least one of the New Haven public schools. It is for such a training that I would prefer the name of a common school technical training. It would differ from the phrase technical training, as commonly used and understood, in that it would prepare for no special trade or calling. It would be a common school system in that it would aim simply to enable any and all boys to become good mechanics and to save a very considerable amount of time and waste in apprenticeship.

So far as this system is allowed to enter and make a place for itself in the common schools, it must be confessed that it would, to some extent, militate against what I might call education for culture. It would not, in the rudimentary branches of *any* course, militate against it. Reading, writing, and arithmetic are very necessary to make a man a good citizen, to make him a good mechanic, and for general culture as well. But, as we go above the rudimentary branches, the agreement disappears. Free-hand drawing is hardly a necessity for good citizenship, but may be taken as a study for culture, and as no mean mechanical advantage. But the study of the piano in the public schools, of Latin and Greek, of psychology and etymology, of all the branches which abler and more ambitious teachers love to encourage, and which are yet essential neither to good citizenship nor to the advancement of industry—what are we to say of these? It is a question with some whether they should not be eschewed altogether. Without entering upon that debatable ground at all, and without making the slightest attempt to trench on the studies whose aim is purely the cultivation of good citizenship, it is surely no radical proposition to assert that education simply for culture ought to yield a considerable percentage of the field which it now occupies in our common school education, to an education which shall be technical in its nature, and shall prepare a larger number of our boys to become good mechanics, of wider mental horizon than heretofore, and furnished with a stronger power of self defense and self preservation than most trade unions can supply. It is in this way, it seems to me, that our common schools could be made very efficient instruments in removing or simplifying some of the difficulties which now beset the labor question.

CHAPTER XI.

A MANUAL OF DISTRIBUTIVE CO-OPERATION.

This is a complete descriptive history, together with statistical details of the workings of coöperation throughout the world, from its commencement up to the present time. This subject ranks as one foremost in the labor problems and is steadily increasing in importance, engaging the attention of those interested in labor matters in this country. It is also of much importance to the laboring classes, and worthy of their careful study. It was compiled by Hon. Carroll D. Wright, Commissioner of the Bureau of Labor Statistics of Massachusetts, at the request of the Legislature of that State, by whose kind permission it is here reproduced.

Upon an order introduced in the Massachusetts House of Representatives, January 29, 1885, by Mr. Henry M. Cross, of Newburyport, a resolve was reported by the Committee on Labor, passed by both branches, and approved March 12, 1885, directing the Chief of the Bureau of Statistics of Labor "to prepare and publish for distribution a pamphlet descriptive of the history, methods, and present condition of coöperative distribution in Great Britain." Under that resolve, the account contained in the following pages has been prepared, and, besides its publication in pamphlet form, is also presented as Part I of the seventeenth annual report of the bureau.

The publication directed by the resolve relates to facts and not argument, and it has been our aim to present these facts with fullness. For that purpose we have not hesitated to reproduce the statements of others, generally in their own language, whenever such statements were concise presentations of the particular facts desired.

In regard to certain phases of the subject, it has seemed best to let coöperators speak for themselves rather than to embody their ideas in our own words. In all such cases we have given due credit in footnotes, and in further acknowledgment we desire here to mention our indebtedness to the pamphlets and other publications of the Central Coöperative Board, Manchester, England; the annual reports of the Coöperative Congresses of Great Britain; the Annuals issued by the English Coöperative Wholesale Society; the works of George Jacob Holyoake, and to the little manual, entitled "Working Men Coöperators," by Arthur H. Dyke Acland and Benjamin Jones.*

The publications of the Central Coöperative Board, particularly those relating to practical details, are invaluable to any one desiring to engage in coöperative distribution. Full lists of these publications may be obtained upon application to the Secretary, City Buildings, Corporation Street, Manchester, England. The reports of the Congresses and the Coöperative Annuals contain much valuable statistical matter. The works of Holyoake, published by Trübner & Co., London, and to be obtained through any bookseller, are exhaustive and authentic as relates to the history of the coöperative movement in Great Britain, while the manual by Acland and Jones is a brief and inexpensive, yet exceedingly useful, handbook covering the whole subject.

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* Cassell & Co., Publishers, London, Paris, and New York, 1884.

WHAT IS COÖPERATION?

At the outset it is proper to define exactly what the subject is that we are to treat. The term coöperation as applied in practice at the present day is not used in its strict etymological meaning. Nor is coöperation as at present conducted what its early advocates proposed. Etymologically considered coöperation means *to labor together*. It has an industrial significance. On the contrary the coöperation of the present has won its greatest success in commercial rather than industrial directions. Its application to productive industry is still largely experimental, and the experiments that have succeeded are, in most instances, not purely coöperative.

Coöperation as proposed by its early advocates contemplated a social transformation, introducing into the operations of industry and trade, that is, into the operations of production and distribution, such principles as would overcome the evils that attend competition. It aimed to reconstruct society upon the communistic basis, its motto being "each for all and all for each," rather than the too common one of "every man for himself." Individualism it deemed contrary to the general good, and it sought to substitute for individualism some system of joint endeavor through which the laborer, the capitalist, and the consumer should be brought into relations of mutual help rather than remain in their usual position of rivalry. Ideally, something like this is still hoped for by ardent coöperators, but practically no such social transformation has yet taken place. Competition still flourishes, and the reconstruction of society upon the communistic basis is not to-day the chief end of coöperative endeavor. The coöperation of the present that is highly successful, and which we are mainly to consider here, relates to the distribution of products rather than to production. It is coöperative trading, not coöperative labor, if, indeed, the latter term is permissible. We shall show hereafter how success in coöperative distribution has, in some cases, paved the way to experiments more or less complete and more or less successful in coöperative production, but it is chiefly with distribution that we have to deal; and it is in this field that coöperation, in the sense of mutual effort, has won its greatest triumphs. The benefits obtained by those who have engaged in this form of coöperation are so great that its history, methods, and present condition are well worth our study and will amply reward our investigation.

One who by virtue of his experience, and his services to the coöperative movement, is certainly entitled to formulate a definition, has presented the following:

> Coöperation, in the social sense of the word, is a new power of industry, constituted by the equitable combination of worker, capitalist, and consumer, and a new means of commercial morality, by which honesty is rendered productive.
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> It is the concert of many for compassing advantages impossible to be reached by one, in order that the gain may be fairly shared by all concerned in its attainment.*

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* Holyoake. History of Coöperation, Vol. 1., p. 2.

This definition, which is comprehensive, while no doubt embodying the author's views, would not be accepted by all coöperators, many of whom are unwilling to admit the claim of the consumer, *as a consumer*, to a share of the profits arising from productive effort. However this may be, all are agreed that in coöperative *distribution* the consumer should share in the profits derived from his trade. This feature is essential in modern coöperative distributive associations and distinguishes them from early attempts in this direction, and from joint stock associations.

Joint stock associations divide profits by payment on capital, that is, *on shares.* Coöperative distributive associations divide profits on *purchases*, not on shares, and pay to shareholders *a fixed rate of interest* on the capital invested.

Applying to the scheme of coöperative distribution the spirit of the last clause of Mr. Holyoake's definition just quoted, we may define it as: A union of many consumers for the purpose of securing in the purchase of commodities advantages impossible to be obtained by one, through an equitable division of the profits derived from their purchases.

Such coöperative unions are upon the continent of Europe termed "consumers' societies." As has been said by another, "they have succeeded in making 20*s*. of earnings go as far as 22 or 23 in an ordinary shop. The true problem of coöperation lies deeper, that is, how to secure the original 20*s*. in workshops under their own management."

Leaving for the present this deeper problem we shall describe the manner in which the distributive societies of England have grown up, their mode of operation, and what they have accomplished. Afterward we shall glance briefly at the other phases of the coöperative movement.

HISTORY OF THE MOVEMENT.

At the beginning of the present century the condition of the common people attracted the attention of certain social philosophers who, seeing the misery that often existed among the working classes, endeavored to devise some scheme for the reconstruction of society upon more favorable conditions. Among these social reformers Saint Simon and Fourier, in France, and Robert Owen, in England, each in his own way, hoped to recreate society upon an ideal basis by a sudden and radical change from existing conditions. It is now seen that it is only by gradual steps that society advances, and that numberless influences and the slow progress of years are necessary to effect important social changes. Therefore it is not surprising that none of these schemes succeeded, although some of them were, in their day, exceedingly attractive.

The influence of Robert Owen upon the coöperative movement in England was immediate and important. He has, indeed, been credited with the origin of the term coöperation as applied to industry. "In no literature," says Holyoake, "before the active days of this social deviser, does any trace of this new industrial shibboleth, coöperation, appear."* "The principles of coöperation were first put together and clearly stated by Mr. Owen in his earliest writings."†

But by coöperation, Owen meant a communistic organization of society, for the mutual benefit of all. Between 1820 and 1830 great enthusiasm was aroused in England in this direction, having its practical outcome in the establishment of communities upon the coöperative plan. The first newspaper organ devoted to the theories then in vogue, was the "Economist," in 1822, although Owen, and others more or less inspired by him, had previously published pamphlets unfolding their plans for social improvement. William Thompson, in 1827, produced a little work called "Labor Rewarded," in which he aimed to set forth a scheme for a more just distribution to labor of its share of product, and presented directions for the establishment of coöperative companies. Later, the Combes and Robert Dale Owen, among others, aided the movement with their pens.

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* History of Coöperation, Vol. I., p. 53.

† Coöperative Miscellany, No. 2, 1830.

In 1824 the London Coöperative Society was formed. In its rooms were held meetings for discussion, and it also undertook the sale of goods made by provincial societies. In 1826 the "Coöperative Magazine and Monthly Herald" was established, this being the second coöperative organ in England, and two years later the "Coöperator," a four-paged penny paper, was published. The latter, however, failed in 1830. Meantime other periodicals and a number of societies were established for the discussion and advancement of coöperative views.

The first coöperative congress was held at Manchester, in May, 1830. Fifty-six societies were represented by delegates. These societies comprised three thousand members, who had, by coöperative trading and weekly contributions, acquired within fifteen months £6,000 capital.* Congresses continued to be held for several years.

There were said to be nearly three hundred societies in Great Britain in 1830, their aggregate membership being about twenty thousand.

Most of the periodicals started before 1830 had ceased to exist by that year. In 1832 Owen began the publication of a new paper, called the "Crisis," and from time to time thereafter others appeared in the British Provinces.

The early attempts at coöperation took various forms. It seemed as if those interested, intoxicated with the hope of a brighter world than that with which they were unhappily familiar, were ready to accept any scheme, no matter how wild or ill-digested, that had in it the promise of improvement. The enthusiasm with which these schemes were embraced afforded in most instances a striking contrast to the failure which finally overtook them. But the discussion of the general subject in congresses and through the medium of the press widely disseminated coöperative views. Most of the enterprises suggested were based upon the communistic plan. The central idea around which clustered the coöperative experiments projected by the leaders of the movement was in those days the recasting of society upon the basis of a community of united interests. But, as Mr. Holyoake has pointed out, "these dreams were postponed on the part of many, and were regarded as separate objects by more, and not regarded at all by the majority of the coöperators, who had formed stores and established numerous manufacturing societies for the mutual advantage of the members." †

The following table shows existing registered coöperative stores established before 1844, with the date of their establishment, and the date when the profits were first divided on purchases.‡

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* History of Coöperation, Vol. I., pp. 150, 151.
† History of Coöperation, Vol. I, p. 188.
‡ Workingmen Coöperators, p. 23.

EXISTING REGISTERED COÖPERATIVE SOCIETIES ESTABLISHED BEFORE 1844.

Date Established.	NAME OF SOCIETY.	When Profits were first Divided on Purchases.
1777	Govan	1878
1795	Hull A. C. Mill	1855
1801	Hull S. C. Mill	Not known.
1801	Whitby Corn Mill	Not known.
1812	Lennoxtown	1813
1816	Sheerness Economical	1863
1817	Devonport U. M.	1818
1821	Larkhall	Profits divided equally.
1827	Meltham Mills	1827
1828	Bridgeton	1828
1829	Forfar, East Port	1861
1829	Huddersfield W.	Not known.
1830	Bannockburn	1866
1830	Huddersfield B	1834
1831	Forfar, West Town	1863
1832	Foleshill L. L.	1865
1832	Foleshill S. S. R	1836
1832	Ripponden	1850
1832	Stockport Great Moor	1832
1833	Arbroath	1861
1834	Forfar, West Port	1863
1834	Kirkheaton	1867
1836	Glasgow, St. Rollox	1836
1837	Devonport Coal	Profits divided equally.
1838	Almondbury	1840
1838	Leslie Bread	1872
1839	Hawick	Shortly after starting.
1840	Darvel	1859
1840	Hepworth	Not known.
1840	Leslie	1864
1840	Netherton	Not known.
1840	Tillicoultry	1864
1842	Freuchie	1862
1842	Galashiels	1847
1842	Middleton-in-Teesdale	1874
1843	Falkland	1865
1843	Kettle	1863

Most of the early stores did not succeed. The reasons for their failure were various. The law did not afford coöperative enterprises adequate protection, and through its technicalities unprincipled men might easily embezzle the funds of the society and escape punishment. Non-adherence to the cash system was in many cases disastrous. But, besides these difficulties under which coöperative stores labored, the great obstacle to success was the defective plan upon which they were based. Most were joint stock concerns dividing profits among shareholders only, and no arrangement was provided for capitalizing profits upon the plan of allowing dividends to remain undrawn as interest bearing deposits. This we shall hereafter see was remedied in the Rochdale scheme of coöperative distribution which has become so successful. By reference to the table just presented, it will be noticed how few of the early stores still remaining divided profits on sales until after the year 1844, in which the Rochdale scheme was made public. Many early stores failed, also, because after the first enthusiasm was exhausted, members had no sufficient motive to continue their work.

After the social reformers whom we have named—Saint Simon, Fourier, and Owen—came Leroux, Cabet, Proudhon, and Greaves, and finally, M. Louis Blanc, who, in 1840, published "*L'organization du Travail*," a work which gave a decided impetus to coöperative endeavor.

Blanc proposed to reorganize labor under government direction so as to regulate production and ultimately to prevent competition. In brief, he contemplated the establishment of social factories, under government patronage and control, upon a plan at first circumscribed but adapted to indefinite expansion. The regulations governing these social factories were to be made by legislative enactment and to have the force of law. All workmen of good character were to be eligible to admission to these factories, limited only to the number possible to be employed with a given amount of capital. Salaries were to be equal.

Mutual interest in the success of the factories was to be secured by the mode of division of profits which were to be apportioned in three parts, one to be distributed to all members equally; one set aside for support of the aged or incapacitated and to alleviate the effect of industrial crises; and the third part to be used for the extension of the industry, the idea being so to expand the business as to furnish employment to all who might desire to join.

Upon the scheme proposed "each social factory may be composed of different businesses grouped around some great industry, parts of the same whole, obeying the same laws, and sharing in the same advantages."

M. Blanc contemplated the admission of capitalists to these associations or factories upon the basis of a fixed interest on capital invested, but not to share in profits except as laborers.

With respect to M. Blanc's influence upon the growth of the coöperative idea, Mr. Thomas Hughes, after pointing out that his scheme is characterized by the French tendency of reliance upon government to do for the people what they despair of doing for themselves, very justly says:

> Nevertheless it marks a great epoch in the history of social reform by the clearness with which it pointed out three principles ever since more or less distinctly felt to be the life blood of coöperative efforts: first, the looking to the association of workers carrying on their accustomed work in common as the true means of raising their social condition through the use of the profits arising from their work; second, the restricting the payment of capital to a fixed rate of interest, and giving the capitalist security for his capital in lieu of profit; third, the elimination of the ruinous effects of competition, and the substitution of a healthy emulation in its place, by the union of different establishments carrying on the same industry by common centers by means of which diverse industries may also be united. Thus, setting aside the arbitrary rule of an absolute equality of salaries, which experience has not justified where the attempt to act upon it has been tried, and which seems to err as much by sacrificing the individual to the body as the present inequality of payment errs in sacrificing the body to the individual—this *organization du travail* may still be regarded as the prolific egg out of which the ideas of coöperation sprang in France, and which has had no inconsiderable influence on the ideas of coöperators in England.

Our review has now brought us to the date of an important event in the history of coöperation in England. The experiments in communistic coöperation had practically failed. A few stores, principally upon the joint stock plan, still remained, but there was no cohesive force binding them together. There was, however, considerable coöperative sentiment existing in the country, waiting a favorable moment to spring into activity.

Not entirely unfamiliar with the theory of coöperation were the weavers of Rochdale, twenty-eight of whom, massing their meager capital of £1 each, were to engage in a scheme of coöperative distribution upon a plan so practical, and with an energy so determined as to carry the assurance of success. Under the name of "The Rochdale Pioneers," these weavers secured quarters in an old weavers' shop in Toad Lane, Rochdale, and, with the limited stock of groceries purchasable with their united capital of £28, began business in 1844. The insignificant character of their enterprise provoked the ridicule of the public.

> When the day and hour for commencing business arrived the little party assembled within to take part in the ceremony were abashed at the largeness of the crowd assembled

to witness it. Some delay took place before any one could muster up courage to take down the shutters, and when at last the "store" and its contents were exposed to public view, all Toad Lane was in a roar. Loud and long were the shouts of derision that rose from a host of "doffers," a species of street boy peculiar to the clothing districts, who, set on by persons who ought to have known better, stared through the windows or blocked up the doorway, evincing their characteristically precocious sense of the ridiculous by the nature of their comments on the modest display of the "owd weavers'" shop.*

But success, instant and unmistakable, overcame ridicule. Not long were these twenty-eight weavers left unsupported in their effort to supply themselves with groceries free from the adulterations and imperfections found in those furnished at the ordinary shops, and, at the same time, divide among themselves the profits accruing from their sale. A scheme so practical, conferring benefits so great, at once attracted new members. The next year the association numbered seventy-four, and the joint capital rose to £181. The whole story of their progress is most eloquently told by statistics, and we, therefore, present it in that form, availing ourselves of the following table: †

STATISTICS OF THE ROCHDALE EQUITABLE PIONEERS.

YEAR.	No. of Members.	Funds.	Business done.	Profits.
1844	28	£28		
1845	74	181	£710	£22
1846	80	252	1,146	80
1847	110	286	1,924	72
1848	140	397	2,276	117
1849	390	1,193	6,611	561
1850	600	2,299	13,179	880
1851	630	2,785	17,638	990
1852	680	3,471	16,352	1,206
1853	720	5,848	22,760	1,674
1854	900	7,172	33,364	1,763
1855	1,400	11,032	44,902	3,106
1856	1,600	12,920	63,197	3,921
1857	1,850	15,142	79,788	5,470
1858	1,950	18,160	71,680	6,284
1859	2,703	27,060	104,012	10,739
1860	3,450	37,710	152,063	15,906
1861	3,900	42,925	176,206	18,020
1862	3,501	38,465	141,074	17,564
1863	4,013	49,361	158,632	19,671
1864	4,747	62,105	174,937	22,717
1865	5,326	78,778	196,234	25,156
1866	6,246	99,989	249,122	31,931
1867	6,823	128,435	284,910	41,619

Not only did the business expand financially, but its scope was broadened. The original stock in trade was confined to the leading staple groceries, such as flour, oatmeal, sugar, and butter. The following table shows the departments afterward added and the date of opening each:

DEPARTMENTS.	Date of Opening.
Linen and woolen drapery	1847
Butchering	1850
Shoe and clog-making	1852
Tailoring	1852
Coal dealing	
Baking	1867

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* W. T. Thornton. "On Labor," p. 376.
† Reproduced from "On Labor," Thornton, p. 377.

Ten or more branch stores are now carried on in the town of Rochdale, and extensive premises owned by the association have taken the place of the old weavers' shop of 1844.

From the first, part of the profits were set aside for educational purposes, and an extensive library and liberally equipped reading-room are now maintained.

The following statement exhibits the condition of the association in 1884, and when contrasted with its humble origin is itself a striking justification of the principles upon which the business has been managed:

Members.	
Number of members, December 31, 1884	11,161
Liabilities.	
Share capital, December 31, 1884	£329,470
Loan capital, December 31, 1884	£14,561
Reserve fund, December 31, 1884	£2,605
Assets.	
Value of salable stock, December 31, 1884	£28,593
Value of land and buildings and fixed stock, December 31, 1884	£53,442
Investments, December 31, 1884	£242,432
Trade and Profits.	
Received for goods sold during 1884	£262,270
Total net profit made during 1884	£36,992
Average dividend paid per £	2*s.* 9¾*d.*
Applied to educational purposes during 1884	£920
Applied to charitable purposes during 1884	£118
Subscriptions to Central Board	£46 0*s.* 10*d.*

The Rochdale store was not the first to engage in coöperative trade, as we have already shown, nor was it the first to divide profits on sales. But whether the time was more propitious or the character of its founders more favorable to success, it became, unlike its predecessors, true to its name, the pioneer of the distributive associations now numbered by hundreds in Great Britain. Unlike the joint stock companies the cardinal principles of coöperative distribution were observed by them: *All profits to be divided on purchases, and all purchasing members to be made shareholders with a fixed interest on the capital invested. The cash system to be strictly adhered to.*

A single paragraph by Holyoake gives a synopsis of the early and later phases of coöperation in Great Britain, and shows the trend of coöperative endeavor after the year 1884. He says:

> The term coöperation was at first, as the reader sees, used in the sense of communism, as denoting a general arrangement of society for the mutual benefit of all concerned in sustaining it. Later, the term coöperation came to be restricted to the humbler occupations of buying and selling provisions.*

The germ planted at Rochdale was not long in developing.

> It was not, however, till the great revolutionary crisis of 1848–9 that any strong impulse was given to coöperation in England. * * * Coöperation at this time took a start (in the north of England) as noteworthy, and more permanent in its results, than the famous Parisian movement, which, after surviving the barricades, withered in the first year of the second empire.
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> The stores in Lancashire and Yorkshire rose rapidly from units to tens, from tens to hundreds. The need of some sort of federation began to be felt, and conferences of neighboring societies to be held in different localities to consider questions of organization and joint action. For, as the societies grew in number and importance, and their trade began to extend beyond the supply of the simplest necessities of life, the state of the law was

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*History of Coöperation, Vol. I, p. 68.

> found to press very severely upon them. They were hampered at every turn, and found themselves going into action, as it were, in the great struggle for existence, not as men in proof armor, but as men in fetters.*

The remedy was at hand. Workingmen throughout England were seeking through legislation to obtain wider opportunities and the freedom of action that had been denied them. The years 1844, 1846, and 1847 witnessed the passage of important statutes affecting factory administration, the hours of labor, and the formation of friendly and trade societies; and saw, also, the repeal of the corn laws. The progress of the working classes was once more under discussion and their condition grew brighter day by day. And now Mr. Fredric Maurice, with others attracted by his energy and enthusiasm, came forward in aid of the coöperative movement. It was fortunate that when the need of favorable legislation was most pressing the influence of Maurice was enlisted. For he, from his position as reader at Lincoln's Inn, was able to interest many young and ardent lawyers, members of his congregation, in the progress of the working classes, and to impart to them his own firm conviction that coöperation was to be an important element in that progress.

In 1850 a society for promoting workingmen's associations was formed, Mr. Maurice being at its head. Coöperation it declared to be "the practical application of Christianity to the purposes of trade and industry." This society became an active force in behalf of the coöperative movement in the practical direction it had now taken. Attracting to itself many coöperators of the Owen school, and numbering among its members, besides Maurice, such men as the late Canon Kingsley, J. M. Ludlow, and E. V. Neal,† its attention was immediately devoted to securing the needed reform in law so as properly to guard and foster coöperative societies.

The first Act affording an adequate legal basis for such societies was passed in 1852, 15 Victoria, 31. The efforts put forth to secure this legislation drew together those engaged in coöperation throughout Great Britain. It is estimated that at the time of its passage about one hundred and forty coöperative stores were in existence. The society under Maurice's administration became a sort of working coöperative center, and in its hall, July 26, 1852, was held a conference of delegates from the provincial societies, at which the new law was discussed, the establishment of a wholesale supply depot considered, the need of a newspaper organ debated, and other important matters brought forward. The first four years' work under the leadership of the London society is thus summarized by Mr. Hughes:

> Coöperative societies had been legalized for all purposes, except dealing with land and banking. The moral side of the movement had been brought into prominence, and principles had been accepted as essential, and incorporated into the constitution and rules of the societies, which have retained their hold, and are to this day appealed to as fundamental. And lastly, the necessity for closer union between the societies had been demonstrated and considerable advances made towards its attainment.

In 1857, Mr. Holyoake published his "History of Coöperation in Rochdale," a work which was widely read, and thus exerted an important educational influence in behalf of coöperative progress.

In 1862 the number of societies in Great Britian was estimated at four hundred and fifty; their estimated membership being ninety thousand; their share and loan capital, £450,000; their annual sales, £2,350,000; and their profits, £166,000. In this year parliamentary returns were first made to the Registrar, and thereafter annual statistical statements were presented.

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*Thomas Hughes. Lecture on the History and Objects of Coöperative (Coöperative Board Pamphlets), p. 7.

†Now Secretary to the Central Coöperative Board. Mr. Ludlow is now Registrar of Friendly Societies. The members of this society were known as Christian Communists or Christian Socialists. In Parliament, Messrs. Walter Morrison, Thomas Hughes, and Messrs. Slaney, Henley, and others rendered material aid to the society in its efforts to secure legislation.

The Industrial and Provident Societies Act of 1862 gave coöperative societies a corporate existence, and permitted one society to hold shares in another. This gave the requisite legal basis for the formation of coöperative wholesale societies, which are federative associations, their capital being in shares held by the societies composing the federation. Such an institution had long been needed to render the independence of the retail stores more complete, to allow them to disregard the jealousy of rival traders who exerted their influence against them with private wholesale dealers, to enable them to secure supplies of undoubted purity, and, while utilizing the surplus capital accumulating in their hands, to permit them to save to themselves the profit arising in the wholesale trade.

After much discussion, the English Coöperative Wholesale was established in 1864, with a capital of £999, which was soon largely increased. Attempts at wholesale coöperative distribution had previously been made, but never upon the broad plan now adopted. Such attempts had failed. The scheme now devised was perfectly logical. It was in principle simply an extension of the plan upon which the retail business had been conducted. The relation of the retail societies to the wholesale is exactly analogous to the relation existing between individual members and the retail, and will be more fully explained hereafter. We are now dealing with the history rather than the economics of the movement. The Scottish Wholesale was founded in 1868. The formation of these wholesale societies marks an epoch in the progress of coöperation, and established the commercial autonomy of the coöperative organization.

From time to time experiments in coöperative production were made, which, in accordance with our plan, we shall here disregard, presenting their salient points later, and for the present confine ourselves to coöperative distribution.

In 1869 a central coöperative Board was formed and annual congresses composed of delegates from the societies represented in the Board have since been held. The Central Board at first consisted of two sections, the London and the provincial, but was afterwards organized as a Union composed of representatives from six districts or sections, and sustained by annual subscriptions from the societies. This union, in conjunction with the congresses, exerts a strong cohesive force upon the societies, and also becomes an efficient agent in propagandism. To operate especially in the latter direction, the Southern Coöperative Guild, having its headquarters in London, was formed in 1877.

The unity of action secured among coöperators by the organization described proved of the utmost value. The annual discussion in the congresses of matters of peculiar interest, and the union of delegates from sections widely separated but engaged in the same work and actuated by similar motives, gave the movement a vitality it previously lacked and materially aided its growth and prosperity.

Since 1860 a newspaper organ of coöperation has been maintained. This is now owned by the societies.

Before closing this historical review it is proper to notice a distinct branch of coöperative distribution in Great Britain—that conducted by societies on the so called civil service plan. There are several of these, the largest in point of sales being the Civil Service Supply Association, and the Army and Navy Society, of London, the latter differing only in having been founded by officers of the army and navy instead of by employés in the civil service.

In reality these societies are consumers' joint stock distributing agencies, dividing no profits on purchases, and selling, not at the ruling market rates, as do the stores on the Rochdale plan, but at the lowest prices consistent with the payment of expenses and a fair interest on capital invested.

The first association on this plan was formed in 1866, and the movement, originated by government employés for their mutual benefit, has made rapid progress.

The trade of these associations is not confined to shareholders, although profits are divided only on shares in the form of interest on capital invested, nor do they attract the trade of workingmen. They conduct a very extensive business at a low expenditure for expenses, and are of great benefit to the classes supporting them. The volume of their trade has been estimated to bear a similar relation to their members' income that the trade of the working class societies bears to their members' income. Coöperation in London is confined to these societies, except in a few outlying districts inhabited by workingmen.

The growth of the civil service societies was stimulated by the success of the stores established on the Rochdale plan, and while they have not adopted some of its vital features, and have confined themselves to cheap buying and selling on the joint stock rather than the coöperative basis, they still have interests in common with the workingmen coöperators, and three of these societies have joined the coöperative union. The essential difference between them and the great body of workingmen's societies will appear in our subsequent analysis. As part of the general movement their work cannot be overlooked in this review.

Speaking of the progress of coöperation since 1824, it has been said:

> The record of these sixty years of coöperative work is a record of work done under the influence of many different motives; but if it could be written out in full, it must contain the names of many unselfish and earnest men, whose names were never known beyond their own town, and even there may now have been forgotten. In the earlier days men were fettered by laws which prevented their combined action, and there was little to protect them against fraud. There were taxes on newspapers, few even decent schools, no coöperative manuals or literature. Now all this is changed.

To which it may be added that whereas in the early days the theoretical or ideal side of coöperation was presented and the practical insufficiently studied, it was only after coöperators set themselves squarely at work upon the practical side of the problem, availing themselves of the avenues easily opened to them, and gradually pushing out into wider fields of endeavor as one obstacle after another was overcome, that success was won. To-day while the ideal is not forgotten and leading coöperators still look forward to heighths yet unattained and to the entire reorganization of all industry upon the coöperative basis, still the effort appears to be to accomplish this through the gradual expansion of the coöperative organization along lines proved by experience to be safe, and not by any sudden or radical change in the structure of society. The coöperation of the present, as represented in the discussions of the congresses, is conservative as well as hopeful, practical rather than ideal, and while full of faith in the future, is inclined to build upon sure foundations a structure whose stability is definitely assured.

THE FOUNDATION IN LAW.

The legal basis of coöperation in the United Kingdom rests at present upon the following statutes now in force: The Industrial and Provident Societies Act of 1876, the Customs and Inland Revenue Act of 1880, and the Provident Nominations and Small Intestacies Act of 1883.

These Acts contain provisions for the formation of coöperative societies; set forth the rights of such societies, and the rights of their members; and prescribe the duties to be performed by the societies.

It is required that in the formation of a society application shall be made to the Registrar appointed by the government. A separate Registrar is provided for England and Wales, for Scotland, and for Ireland. Blank forms of application are furnished, specifying twenty distinct matters relating to the conduct of the society's business, which must be incorporated in its rules, two copies of which, signed by seven persons and the Secretary, who are also to sign the application, must be forwarded with the latter to the Registrar.

After registration the society becomes a body corporate, may sue and be sued, and may hold and deal with any kind of property, including shares in other societies and companies and real estate to any amount.

The rules of a society bind its members, notwithstanding they may have signed no assent to them. The rules may be amended in the manner originally provided for such amendment, but any amended rule must be registered. Application for such registration must be made upon a form supplied by the Registrar, and a fee of 10*s*. is charged.

A society may sue its members. It may make a contract, and a contract made by it is binding as if similarly made by an individual, and when made under its seal, or by a writing executed by a person authorized to sign in its behalf, or verbally by one duly authorized to speak for the society.

Any or all of its shares may be made withdrawable. It may carry on any trade, except banking, including trade in real estate. It may apply its profits in accordance with the provisions contained in its rules.

It may, if the rules so provide, receive money on loan from any one, to an amount limited by its rules, or it may accept deposits, limited to 5*s*. in any payment, and to £20 for any depositor, payable at not less than two days' notice.

It may also, if its share capital is not withdrawable, carry on the business of banking.

It may make loans to members on real or personal security. It may also invest on the security of other societies or companies, save those only where liability is unlimited.

It is exempt from the payment of income tax on profits, provided the number of its shares is not limited by its rules or practice.

It may, by procedure duly set forth in the Act, unite with any other society, or may acquire the business of any such society, or may change its organization into that of a company.

It may provide the mode of settlement of disputes that may arise between itself and its officers or members.

A society may dissolve itself by an instrument signed by three fourths of its members, or dissolution may be effected by a three-fourths vote at a general meeting called for the special purpose. If such dissolution be voluntary the resolution must be confirmed at a second meeting, but if on account of debts, the action of the first meeting is sufficient.

If the society is in dissolution on account of debt, hostile proceedings to seize the property may be stayed.

Minors, if not under the age of sixteen, may become members, and may act as if of full age, but cannot hold office.

Members are not liable individually for the society's debts, and their liability in any event is limited to the amount remaining unpaid on shares legally theirs, or which they have agreed to take. They are not liable for debts contracted subsequent to transfer or withdrawal of the shares held by them; nor for debts existing at date of such transfer or withdrawal, unless the other assets are insufficient to meet the liabilities of the society.

The number of shares permitted to be held by an individual or company may be fixed by the rules, but must not exceed in the total the nominal value of £200. The number of shares permitted to be held by a society is unlimited, and likewise there is no limit to the amount which may be received as a loan from an individual or company, except the limit, if any, fixed by the rules.

A member may by instrument duly recorded nominate the persons who shall take his investment in the society at his death, provided at the latter event this investment in loans, deposits, or shares, does not exceed £100, and a nomination may be varied or revoked. If no nomination subsists in the event of a member dying intestate, the Committee of Management become administrators of the fund.

Whenever upon the death of a member his investment exceeds £80 the Commissioners of Inland Revenue are to be notified.

Upon application to the Registrar members may secure an official investigation into the affairs of the society.

Every society must have a registered office with its name conspicuously displayed outside. A change of location must be at once reported to the Registrar. It must have an engraved seal bearing its name, must have its accounts audited at least annually, and a copy of its last balance sheet and auditor's report must be constantly displayed in its office. Annual returns of its affairs must be made to the Registrar, and a copy furnished, when applied for, to all interested parties.

Its books may at any time be inspected by any one interested in its funds.

Special returns are required if the society conducts a banking business.

Copies of its rules must be supplied by every society to any applicant, at a price not more than one shilling.

The duties set forth in the Act must be performed by the society under penalties. These penalties affect the society and its officers and vary from £1 to £50, and are in some cases cumulative during the time the neglect continues.

THE RETAIL STORE.

The unit of the coöperative organization is the retail store. In starting such a store in a new district in Great Britain, it is considered desirable to make use of the advice of the Coöperative Union. At the present day its work has become so systematized through experience that its help is of great benefit to the unpracticed coöperator. It has prepared model rules for the administration of coöperative societies which are in harmony with the requirements of the English law, and it is ready at all times to aid every new enterprise by showing those interested everything essential to the successful establishment of a store.

First Steps.

In the first place, after a few persons have become impressed with the advantages of coöperative distribution, and have determined to found a society, a meeting is usually held to awaken public interest and to secure members. Speakers may be obtained from the Coöperative Union or from the Southern Coöperative Guild. The advantages of coöperation are explained and every effort made to stimulate interest in the movement. An informal organization is effected, collectors appointed, and the work of securing the required capital begins.

Capital.

The coöperative scheme rests on the basis of cash payments. The outfit and goods are bought for cash and no sales on credit ought to be allowed. Considerable capital, therefore, must be paid in before the store opens. The amount to be raised and the number of members to be secured before business is begun will depend on circumstances. It is considered that one hundred members, with £130 capital, and a guaranteed trade of from £40 to £50 per week, are required to insure expenses and a dividend if the store is to be constantly open. But the beginning may be much more humble. The store may be open only at certain times, for instance, evenings, or on particular days in the week, thus reducing the expense of a storekeeper by employing only a portion of his time. A member who is otherwise employed may, if capable, serve as storekeeper in the evening, or a member's wife may be selected for the position.

It is deemed essential that, however established, the store should depend for its prosperity on the support of actual members, and not rely upon loans or gifts from those who may have a sentimental interest in the scheme. The trade of some members may at first be limited. If in debt to private traders they cannot at once transfer their entire patronage to the coöperative store. Slowly they may by economy extinguish their debt and increase their trade. An independent beginning of the store, no matter how humble, and a gradual expansion as business increases, is always advised.

Shares.

The number of shares held by each member may be not less than one nor more than two hundred, the value of each share being £1. A fixed rate of interest is paid on capital invested, usually 5 per cent, and members are encouraged to leave undrawn the dividends accruing on their purchases, such undrawn dividends being added to the capital, thus permitting an increase of the business. The store in this way performs the functions of a savings bank of deposit, thrift on the part of members is stimulated, and while on one hand the evils of debt are prevented by adherence to the rule of cash payments, on the other members form the habit of saving, by the inducement offered to allow their dividends to go on deposit at a fair rate of interest.

Nature of Share Capital.

To determine the nature of the share capital, that is, whether it shall be withdrawable or only transferable, opens an important question which the new society must meet and settle. Its bearings are considered in the following:

> In the general rules three cases are provided for: first, where all the shares are to be withdrawable; second, where they are all to be transferable; third, where some are to be transferable and some withdrawable. In the early days of coöperative societies the law compelled them to make their shares withdrawable. The early societies were accordingly all formed on this principle; and the large majority of those formed after the alteration of the law, when shares were allowed to be made transferable in the case of joint stock companies, followed the example of their predecessors. Cases, however, have occurred where rumors have been spread as to the solvency of such a society; a run has taken place upon their funds, the more selfish members seeking to secure themselves from sharing in any loss, careless of the result to their fellow members; and the society, having almost all its capital locked up in buildings, fixed stock, and trading stock, has had to stop payment, though perfectly solvent, so as to gain time to realize its assets. Some of the older societies, hampered by the fact of their members having become accustomed to withdrawable shares, have met this difficulty by altering their rules, and making a portion of their capital transferable.
>
> It is, however, generally considered among coöperators that in the case of new societies it is much the best plan to make all the capital transferable. To meet the case of members leaving the locality, or wishing to draw out a part of their capital in order to provide for any given expenditure, as in the case of illness, you should have a rule, such as is given in the model rules above mentioned, enabling the committee to purchase the shares of members at a price not exceeding their par value, *i. e.*, the sum paid up on them. In this manner the capital becomes in fact withdrawable, except in the one case of a panic as to the financial position of the society, in which case it is only fair that, if there be any ground for alarm, all the members should share equally in any loss sustained. You may also very well have a rule empowering the committee to take money on loan from members, after they have contributed some definite amount to the share capital, to be withdrawable on demand, or after so many days' notice, according to the amount withdrawn.*

Many coöperators think that the matter is best settled by making every member have one non-withdrawable transferable share of £1, and let his remaining shares, which he acquires through undrawn dividends or by other investments, be withdrawable.†

Payment of Subscribed Capital.

Not all the money subscribed for shares need be paid up at once. It is usual to make payments at the rate of 3*d.* per week. In some societies subscribers do not acquire full membership until an entire share or even several shares have been paid for in full. In general, however, after a shilling has been paid in, members are allowed to have full privileges. Concerning this matter, Mr. Morrison, in the pamphlet already quoted, says:

> Urge your members to pay up their shares in full if they can, in order to simplify your accounts. It may be useful to this end to provide a special rule that no interest will be allowed on any sum under £1,‡ so as to induce a member who may have £1 18*s.* invested to pay up the balance of the two shillings at once. You should also adopt the provision in the general rules that no dividend on purchases shall be paid to any member until he has some definite sum, to be fixed by a special rule, invested in the share capital; all such dividends being credited to him until this amount is made up. You will require an average capital of £10 per member. If you can rely upon the richer members contributing more than this sum, you might fix the minimum amount which each member must invest at perhaps £5.

Registration.

Before beginning business the society must be registered at the government registration office for industrial and provident societies. No registration fee is charged.

The Executive Committee.

The selection of the executive committee is a matter of scarcely less importance than that of raising the required capital. The committee appoints the storekeeper and other employés, controls the purchase of the stock in trade, overlooks the finances of the society, and is, in fact, intrusted with the entire supervision of its affairs. The nature of these duties suggests the care that ought to be taken in selecting the men who are to perform them. The success of the society will largely depend on the efficiency and honesty of the committee. It may consist of from seven to twelve members who are usually elected at quarterly meetings, their terms of office being so arranged that part of the committee goes out of office at each meeting, or in some cases semi-annually or annually, although, as respects this, many societies have no rule. Members of the committee may or may not be eligible to reëlection immediately upon the expiration of their terms of office. Sometimes it is provided that a member, after having served a certain fixed time, must retire for an interval before becoming eligible again. Generally speaking, experience in the duties of the office should count in favor of the retention of a committeeman, and sweeping changes ought to be discountenanced. Of course many things combine to determine the popularity of an officer intrusted with the management of a society in which many persons have a keen interest, and committees cannot expect immunity from the adverse criticism which, however undeserved, sometimes affects this popularity. On the other hand, members who desire the welfare of the society ought to be careful that grievances of a purely personal or petty nature do not blind them to the recognition of what is, on the whole, a faithful and conservative management of its affairs. Helpful criticism is always to be desired, and adds to the efficiency of the committee and promotes the society's interests.

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* Walter Morrison, Esq. Village Coöperative Stores (Coöperative Board pamphlets).

† Workingmen Coöperators, p. 36.

‡ Or, more explicitly, on any fractional part of a £, thus supplying a motive to cause subscribed capital to be fully paid up.

The President of the society is sometimes elected by the members, and sometimes by the committee. The Secretary and Treasurer by the latter. Many societies dispense with a Treasurer. Members of the committee are usually paid a small fee for attendance at the weekly business meetings.

> It is most desirable, in fixing the scale of payment, to avoid the likelihood of men trying to get on to the committee *simply for the sake of the fees.* This is a danger to be carefully watched in the coöperative movement. The work of its managing men (not its paid officials, to whom it is a profession) should be that of volunteers, who are repaid in moderation for their expense or trouble, and who will withdraw or resign their position at once, without a moment's hesitation, on the score of money, if that is being done of which they so strongly disapprove that they believe this to be the right course. Otherwise they are not independent, and may tend to get into the hands of men more powerful than themselves, who are well aware that they will not resign if they can possibly help it. From 6*d.* to 2*s.* a time for weekly committee meetings, and nothing for sub-committees or adjourned meetings, is a common rule in a moderate sized society.*

The Secretary, and the Treasurer, if there be one, furnish security to the society for the proper performance of their duties, either by deposit or bond, and are usually paid a salary proportioned to the labor devolving upon them.

Business Premises.

The first duties which demand the attention of the committee will be the selection of premises in which to conduct the business of the store and the engagement of a storekeeper. As to premises, conditions of eligibility, rental, etc., will affect their decision. The aim, of course, is to make the store as convenient as possible to the majority of members. If the beginning is to be quite humble, the dwelling house of a member may be selected as headquarters, and more extensive, and consequently more expensive quarters taken as business expands and the success of the movement becomes assured.

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* Workingmen Coöperators, p. 49.

The Storekeeper.

The storekeeper should be a man of unquestioned integrity and, if possible, not only a believer in coöperation, but of some experience in coöperative trading. Now that coöperative stores have multiplied, a man possessing the latter qualification is not hard to find if the committee exercises proper care, and especially if the aid of the Coöperative Union is sought. It is considered undesirable rather than otherwise that a storekeeper has been trained as a private trader. The average salary of a storekeeper in English towns is about 25*s*. or 30*s*. a week besides rooms and gas; in country villages, 18*s*. to 25*s*. suffices.

Store Fittings.

The fittings of the store are of the usual sort common to private stores of the same grade. The wholesale coöperatives provide these if required, at a lower rate than they can be bought for elsewhere.

Stock in Trade.

Premises and fittings having been secured and a storekeeper engaged, a stock of goods must be purchased, and here again, as well as in the future purchase of supplies, the judgment of the committee will be put to the test. The maxim that goods well bought are half sold applies to coöperative as well as to ordinary stores. It is also well understood, and so generally practiced as to become the rule, that no adulterated or inferior goods are to be allowed upon coöperative counters. No credit, it will be remembered, is to be given purchasers, and stock in trade is to be bought for cash upon the best terms.

Experience and the growth of the coöperative organization has in these days provided helps for inexperienced committees. The wholesales provide lists of articles such as are proper to provide in starting a store, with quantities and prices of each. The Coöperative Union in this as in other matters of detail is ready to give advice. The coöperative literature affords pamphlets upon the subject of purchases. Thus the path of the unpracticed coöperator is not entirely dark, and he is enabled to profit by the wisdom gained by his predecessors in their unaided efforts during the earlier years of the coöperative movement.

A store in the beginning usually confines itself to the staple articles of groceries, and increases the variety of its stock as the demand of its patrons warrants. Thus to ordinary groceries, hardware, tinware, crockery, etc., may first be added. Ready made boots and shoes, drygoods of the staple sorts, clothing, hats, caps, etc., are eventually supplied. As to the latter articles greater care and experience in buying are, of course, demanded, so as to avoid loss by depreciation, owing to change of fashion.

In some instances a department for making boots to measure and others for custom tailoring and millinery have been successfully incorporated.

A bakery forms a favorite and generally profitable branch of English coöperative stores. Many fully equipped coöperative bakeries exist as departments of these stores and do a large business. Butchering, also, has been tried, and with some profit, but, as this requires greater experience and trained judgment on the part of the buyers, and as greater difficulty has been found in procuring efficient department superintendents in this line than in the others mentioned, it has not as yet been found equally successful.

The sale of coal, on the contrary, is common and profitable.

As to the advisability of conducting several departments under one management, the following is to the point, and the statistics give a glimpse at what has been accomplished:

> Speaking generally, "make one department a success at a time, keep the accounts of the departments separately, and publish the profits of each department in the balance sheet," would be the advice of many coöperators. The number of the chief departments carried on by societies is as follows: 1185 societies do business in groceries and provisions; 772 in drapery; 715 in boots and shoes; 333 in coal; 211 in butchery; 188 in baking; 185 in furnishing; 137 in hardware; 76 in tailoring.*

In making purchases the normal conditions of supply and demand should be strictly considered, and, as a rule, all speculative purchases avoided.

> The amount of stocks should usually not exceed the amount of sales for three or four weeks in groceries; for ten to fourteen days in provisions; for one month in bakery; for three or four days in butchery; for ten to thirteen weeks in drapery, boots and shoes, and furnishing.†

In sales the ordinary prices of the locality are charged, no attempt being made to undersell private traders. It is not in reduced prices but in division of profits that the purchaser reaps his reward.

As dividends are to be declared on purchases, arrangements must be made for registering the latter and enabling each customer to prove quickly the amount of his purchases in order to collect his share of profits. This is accomplished quite simply by giving each customer a check or token, either of metal or paper, representing in amount the amount of his purchase. These are retained and presented at the end of the quarter to secure payment of the dividend. Members are from time to time during the quarter required to exchange tokens of small nominal value for those of higher denomination, in order to reduce the number of tokens of small denomination required in circulation and to simplify matters generally.

In the use of these tokens fraud may occur, as, for instance, employés have been known to purloin them and afterward secure their presentation through an accomplice for exchange. On the other hand, purchasers have held them back for presentation during a quarter subsequent to that in which they were issued, and when the dividend happened to be larger, thus unfairly sharing in a larger division of profits than was justly their right, besides disarranging the accounts of the society.

The paper checks may be so made as to guard against the latter evil by changing the color in each quarter, but the paper checks may have their nominal value increased by fraudulent alteration of the amounts borne upon them.

Great care is needed to insure against corrupt use of the checks, and the ideal check system has yet to be devised.

Various methods are employed to check the operations of the manager and to discover the amount of cash passing through his hands. The system of dividend tokens just described affords a partial check, but, for the reasons stated, fraudulent use of the tokens may render this sort of checking nugatory, and if relied on cause a perfectly honest manager to be unjustly suspected. Among other plans one is "giving the customer a ticket, who takes it to a boy, who gives metal checks in exchange and registers each shopman's sales." This is of course applicable to the larger stores only. No absolute check upon the manager's operations has yet been devised. The best safeguard is the watchfulness of the committee. A dishonest manager cannot long retain his place if the duty of the committee is well performed.

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* Workingmen Coöperators, p. 68. † Ibid, p. 43.

Duties of Members.

The matters of detail to which we have alluded having been attended to, the store is now ready to open its doors for trade. All, whether members of the society or not, are welcomed, and non-members are permitted to share in the profits, but not to the same extent as members, it being usual to allow them but one half the regular dividend. It is always desirable to induce non-members to join the society, and sometimes a full dividend is given them, one half being paid in cash on demand, and the balance credited to a share account in their name, thus in time creating a deposit sufficient in amount to create them full members.

The business of the society, now that the store is in active operation, will depend upon the fidelity with which members patronize it, refusing, as they should, to be drawn away by the insidious solicitations of private tradesmen, who frequently attempt to undermine coöperative stores by cutting prices, offering liberal credit, running special lines of goods at cost prices, and by other devices contrived to lure coöperative customers into their shops.

These attempts are likely to be more effective in the infancy of the coöperative store than later, for the participation in profits soon teaches the thoughtful patron of coöperation that his position as a partner is of more benefit to him in the end than any temporary gain which he may appear for the moment to reap by purchasing at under rates elsewhere.

But if the store is to be thoroughly prosperous, each member must do more than merely give to it his trade. He must take a deep interest in its affairs, must exercise a watchful supervision over its administration, attend the business meetings, participate in the election of officers, carefully study the financial reports, or balance sheets so called, issued quarterly,* and teach himself to criticise intelligently the policy pursued by the committee who are his servants in immediate control of the enterprise.

At the business meetings all members have equal voting power, so that the society in its organization is thoroughly democratic. Women, too, are usually eligible to membership on the same terms as men, and in some cases have been given places upon committees.

Besides the quarterly business meetings it is usual to hold monthly meetings at which it is customary to read the minutes of the meetings held weekly by the committee, and discussion is permitted thereon. Social gatherings of the members are also held annually, or even more frequently, as a means of welding together more firmly the interests of all who are connected with the movement.

Stock Taking and Auditing.

Account of stock is to be taken quarterly or half yearly and profits divided, and this should be carefully and honestly done, with no attempt at over valuation or desire to increase the dividends beyond the percentage fairly earned. Accurate bookkeeping is essential to the pecuniary welfare of the society, and a "Manual of Bookkeeping," giving full advice upon this head, has been published by the Coöperative Union.

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*Or semi-annually if dividends are thus declared.

The union has also published a "Manual of Auditing." Great responsibility rests upon the auditors, who are to make a complete examination of the society's affairs and who are to assure themselves that the balance sheet is correct, and to vouch for it by their signatures. They ought to be men familiar with accounts and, if possible, of some financial experience.

> An inexperienced auditor will do well to act on the following hints. Ascertain that stock has been carefully taken and checked. See that everything is priced at the cost, or a less value, and that all deteriorations of stock have been amply provided for. Count the cash in hand. See that proper vouchers have been received for all payments; and if not sufficiently master of bookkeeping to adopt short systems of check, by comparing the totals of different accounts, check every individual item from its first entry until placed in the balance sheet. Compare the members' pass-books with the ledgers. See that the total of the members' account agrees with the amount placed in the balance sheet. Ascertain that all goods received and taken into stock are duly paid for, or else taken as a liability, and also that all sums due by the society to merchants and others are taken as liabilities. The best plan is to send a circular note at stock-taking to all persons the society does business with, asking them to advise the auditors what sums are due to them by the society. Examine the committee's minute book, to see that all expenditure has been duly authorized, and inspect the deeds and other securities of the society.*

The auditors may be of such number as the society may direct, usually two. Provision is made for the appointment of a public auditor in lieu of auditors elected by the society. No employé of the society is eligible to the office of auditor. Auditors are paid such remuneration as may be voted them at ordinary business meetings.

Any member or person in interest has an individual right of inspection of the accounts of the society under proper regulation, but is not permitted, without special authorization, to inspect the loan or deposit account of any other member without the latter's written consent.

In certain contingencies it is provided that the affairs of the society shall be examined and reported upon by inspectors appointed by the government Registrar. The government requires annual returns to be made from every society, containing a general statement of its receipts, expenditures, funds, and effects.

Allotment of Profits.

The model rules provide for the following allotment of profits: (1) Interest on loans, deposits, and preferred shares, if any; (2) reduction of the value of fixed stock and plant at such rate as the society may direct (subject to change by the society at the annual rate of 10 per cent on fixtures, and of 2½ per cent on buildings); (3) reduction of expenses, if any, incurred in forming the society; (4) dividend on share capital; (5) reserve fund; (6) educational fund; (7) congress fund; (8) social fund; (9) dividend on purchases and bonus to employés.

The second item in the foregoing list relates to the amount written off at each stock-taking to allow for the depreciation in value of fixtures and buildings owing to wear and tear. There is a temptation to neglect this as any amount so charged decreases the amount of net profits, and consequently reduces the dividend. But prudent management requires this depreciation to be conscientiously made in order that the assets of the society may not be found overrated if a financial panic should overtake it.

The third item is temporary only and confined to the early years of the society. The fifth item provides for the establishment of a reserve fund, the possession of which adds to the financial stability of the society. Besides the allotment to such a fund of a portion of the profits, usually 10 per cent, all fines are carried to it. The fund is applicable by resolution of the society to the equalization of dividends, to meet contingencies affecting the business of the society, or to any other purpose which the general meetings may from time to time direct. The income from the fund is used to increase dividends in the same manner as other income of the society.

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*Workingmen Coöperators, p. 60.

The application of a portion of the profits to educational, social, and benevolent purposes, contemplated by the sixth and eighth items, is always considered to be in harmony with the underlying principles of coöperation. Many societies apply 2½ per cent of the profits to educational purposes, such as technical classes, maintenance of library and reading-room, etc. Others neglect the matter altogether, although it is always advised by leading coöperators.

The congress fund mentioned in the seventh item provides for paying the annual subscription to the Coöperative Union, or to any official organ recognized by the congress.

The practice of allowing employés to share in profits by means of a bonus, provided for in the second clause of the ninth item, would seem to be clearly in accord with coöperative principles, but, although some societies practice it, it is not generally popular. When given it may be said to be awarded on the ground that if employés share in this way they will take a livelier interest in the society's welfare, and thus the bonus will be money well expended in that it will in reality tend to increase profits. Except in theory, the practice does not seem to rest upon the abstract justice involved in the principle of awarding to all who coöperate in producing a given result a share in the benefits obtained. This principle would seem to demand the admission of all employés to an interest in the business, but it appears to be self-interest purely that induces most of the societies that have adopted this plan to pursue it. At present, profit sharing with employés, although nearly always advocated as a matter of theory, is not extensively practiced among coöperative trading societies.

The Balance Sheet.

The balance sheet issued to members forms a complete report of the financial status of the society. Members rely upon it for their knowledge of the society's affairs. It should show clearly, and in as simple a form as possible, so as to be readily understood by the average man, the cash account of the society, giving its cash assets and receipts upon one side, and its liabilities and cash expenditures upon the other. The trade account should also be shown, giving upon the debit side the value of stock at beginning of quarter, amount of subsequent purchases, with expenses and outstanding liabilities, if any, for purchases, and on the credit side the amount of sales liabilities at beginning of quarter, value of stock at end of quarter, etc., the balance of the account showing the net profit. The expense account should be shown in detail, and a concise summary of the capital account should appear, giving the assets and liabilities in detail, followed by a detailed statement of the disposal of profits. The balance sheet ought to be published several days before the general meeting, so as to give members an opportunity to study it and compare it with former issues, that they may be able to criticise it, if need be, and to question it intelligently at the meeting.

Summary of Essential Points.

We have now given such a description of a retail distributive society as will, we believe, enable the reader to understand how such a society is formed and carried on. Besides the points we have mentioned the model rules contain provisions for settling by arbitration disputes arising between a member or any interested person and the society or an officer thereof; for expelling any member who may be guilty of conduct detrimental to the society and for the payment to such a member of the sums paid in on shares held by him; and the necessary provisions for conduct of business, transfer of stock, change of name of society, etc.

We now present the following summary of essential points and causes of success and failure, for which we are indebted to the manual entitled "Workingmen Coöperators." We find them nowhere else so succinctly stated:

Essential Points. (*a*) The store is open to all; (*b*) charges ordinary market prices; (*c*) receives ready money only, and gives no credit; (*d*) gives dividend in proportion to purchases; (*e*) every member must have a share or shares, and receives good interest on them; (*f*) all are equal in voting power, whether they have few or many shares; (*g*) the store sells genuine articles, which are what they profess to be; (*h*) the store has an honest manager and an active committee; (*i*) the society insists on an efficient and intelligent audit and stock taking.

Causes of Success. (1) A clear understanding and performance of the duties of an officer, an employé, and a member; (2) competent and painstaking officers; (3) competent and trustworthy employés; (4) proper security for the honesty and efficiency of the principal employés; (5) amicable and earnest working together; (6) promptitude and punctuality in business; (7) impartiality, civility, and pleasant manners in the members and in the staff; (8) generous treatment of the employés; (9) judicious purchasing and careful regulation of the stocks; (10) ready money purchases and ready money sales; (11) carefully regulated expenses; (12) judicious investment of all surplus capital; (13) ample depreciation of property; (14) ample reserve funds; (15) good bookkeeping and auditing; (16) officers giving full and free explanations to the members' meetings; (17) members having full confidence in the officers.

Causes of Failure. (1) Allowing the storekeeper to do as he likes; (2) allowing credit to purchasers; (3) bad bookkeeping and auditing; (4) bad rules; (5) carrying repairs and renewals to property account instead of expenses account; (6) competing with all the "cutting" shops; (7) expenses too great for the business; (8) employment of incompetent persons; (9) dishonesty; (10) injudicious purchasing; (11) injudicious and frequent changes of policy; (12) members purchasing away from the store; (13) not taking ample security from persons in a position to misapply the society's effects; (14) permitting the manager to buy away from the wholesale societies; (15) inefficient officers; (16) members being unreasonable and quarrelsome; (17) purchasing goods on credit; (18) overbuilding; (19) starting branches or new departments before the society is strong enough to bear the burden; (20) waste behind the counter from bad stock keeping or careless weighing.

THE WHOLESALE STORES.

The success and multiplication of retail stores suggested the propriety of establishing a central purchasing agency or wholesale depot. The benefits which it was expected would be derived from such an institution, and which have been largely realized, were, among others, the following:

Stores will be enabled, through the agency, to purchase more economically than heretofore, by reaching the best markets.

Small stores and new stores are at once put in good position, by being placed directly (through the agency) in the best markets, thus enabling them to sell as cheap as any first class shopkeeper.

As all stores will have the benefit of the best markets by means of the agency, it follows that dividends paid by stores must be more equal than heretofore, and, by the same means, dividends will be considerably augmented.

Stores, especially large ones, will be able to carry on their businesses with less capital. Large stores will not, as now, be necessitated, in order to reach the minimum prices of the markets, to purchase goods they do not require for the immediate supply of their members.

Stores will be able to command the services of a good buyer, and will thus save a large amount of labor and expense, by one purchaser buying for some one hundred and fifty stores, while the great amount of blundering in purchasing at the commencement of a coöperative store will be obviated.*

In our historical review we have mentioned the unsuccessful experiments which preceded the establishment of the English Coöperative Wholesale in 1864. It is not necessary to elaborate these experiments. They failed, partly because the coöperative movement had not become sufficiently strong to sustain such an institution, and partly on account of defective business principles embodied in their administration. The great success of the existing English wholesale and of the Scottish wholesale, established at a later date, is sufficient to commend the plan upon which they are organized to those desiring to found a similar enterprise elsewhere, and we therefore give a detailed description of its features.

In its organization the English wholesale is a federation to which none but coöperative societies are admitted. Such an organization presupposes the existence of retail associations for whose benefit the wholesale society is formed. At first each retail society in joining the wholesale subscribed capital in the proportion of one share to each of its members, the value of each share being 5*s*., the same being transferable, 1*s*. to be paid up on each share at time of subscription and interest and dividends to remain undrawn until balance of capital subscribed is paid up.

In 1871 the value of shares was changed to £5, and the number of 5*s*. shares decreased accordingly. Societies were now required to take up one share to each twenty members, and in the following year this provision was changed to one share to ten members.

It was at first proposed to sell goods at cost, with a small commission added to cover expenses. This was soon abandoned as impracticable, and a plan identical with that adopted in the retail stores was substituted, goods being sold at a profit, and all net profits divided among purchasers in proportion to purchases. As in most of the retail stores, non-shareholding purchasers are allowed one half the dividend given to shareholders.

Business was begun in 1864 at Manchester, where the central offices are now located. The growth of business led to the establishment of main selling branches at Newcastle, in 1871, and at London, in 1874, and subbranches at Leeds, in 1882, and at Bristol, in 1884.

Buying branches, also, have been established at Tipperary, Killmallock, Limerick, Armagh, Waterford, Tralee, and Cork, in Ireland, for the purchase of Irish butter, an important staple, of which the wholesale society is the largest purchaser. A purchasing branch, which is also a forwarding depot, is maintained at Liverpool, a buying agency for American produce at New York, N. Y., and purchasing agencies at Calais, Rouen, Copenhagen, Hamburg, and a special agency for the purchase of tea and coffee at London.

The society also conducts a shipping business, which owes its origin to its extensive importations of foreign produce, much of which it was desirable to obtain directly from the producers and to secure its careful packing, prompt, and dispatch. Four steamers are now owned by the society, running regularly between Garstow and Rouen, Goole and Calais, and Goole and Hamburg.

The society also sustains a banking department on the usual plan of such institutions. The profits of the banking department are apportioned as follows:

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* Coöperative Annual, 1885, p. 70.

First—The customer who has a credit balance with the bank will share in the profits on the earnings in proportion to the amount, varying from a quarter to one per cent over the interest the customer would get from the usual terms allowed by the ordinary banker.

Second—The debit customers share in the profit too in a similar way to the credit customer, on the amount of interest which is paid on the debit balances of their account.

Third—A customer may be a credit and debit customer in the same quarter, and would receive profits both as borrower and lender.*

Besides dealing largely in groceries and provisions the society manufactures biscuits, sweets, dry and soft soap, and boots and shoes; and supplies drapery, hardware, carpets, crockery, fancy goods, and general furnishings. It is the selling agency of several coöperative productive societies manufacturing drygoods, dress goods, ready made and ordered clothing, miscellaneous textiles, furniture, watches, machinery, etc.

Just as the retail stores are administered by a committee chosen by members, so the wholesale, conducting the widely diversified business that we have outlined, is governed by a committee elected by ballot by delegates from the societies composing its membership, each society being entitled to one delegate to every five hundred members or fractional part thereof, every delegate having one vote.

The manner of conducting the wholesale business is analogous to that of the retail. The general committee at Manchester has sixteen members. The London and Newcastle branches are conducted by branch committees of eight members each, responsible to the general committee, and in the deliberations of the latter represented by one delegate from each branch. As to stock-taking, which is done quarterly, auditing, etc., the description which we have given of the retail stores applies equally to the wholesale. Four auditors are employed who are elected by the shareholders, and paid an annual salary of £40 each, besides the allowance of second class railway fares. Full quarterly balance sheets are published. A strong reserve fund is maintained. The value of the property is written down, or depreciated, at each stock-taking, at the following rates: land, at 2½ per cent; buildings, at 5 per cent; fixed stock, at 7½ per cent; all depreciations being taken upon the original cost. All shares are transferable without charge, and the society has a lien on all shares.

When societies desire to open an account with the wholesale they are required to furnish a copy of their last balance sheet and registered rules. If a balance sheet has not been issued they are directed to state the number of their members, amount of paid up share capital, whether credit is allowed, and, if so, to what extent, and the amount of business done, or probable amount which will be done by them. If not registered at time of application, but in process of being so, cash is required with each order. After registration cash must be forwarded with the first order, and on subsequent orders payment must be made within seven days from date of invoice. An application for shares from any society or company must be made by resolution of some general or committee meeting of such society or company, contained in writing and attested by the signatures of the Secretary and three members. The number of shares to be taken by each society, as before stated, must be not less than one to every ten members, and this number must be increased annually as the number of members increases. The liability of each shareholding society is limited to the amount of its shares. Share capital receives interest at the rate of 5 per cent per annum.

The administration of the Scottish wholesale is substantially the same as that of the English wholesale, except that shares therein may only be transferred with the consent of the committee and two-thirds majority of a special meeting of shareholders, and that employés share in dividends in proportion to wages at double the rate per pound that is allowed on members' purchases. Shareholders have one vote each, and one additional vote to each £500 purchases. Shares are 10*s*. each, one shilling to be paid in on application. Both the English and Scottish wholesale societies are authorized to carry on any business.

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* Coöperative Annual, 1885, p. 16.

The following statistical statement exhibits the financial relations existing between the retail societies and the English wholesale, by districts, for the year ending December 31, 1883, the latest available:

DISTRICTS.	Number of Members, December 31, 1883.	TOTAL CAPITAL, DECEMBER 31, 1883.		CAPITAL INVESTED WITH WHOLESALE SOCIETY, DECEMBER 31, 1883.		Total Sales During Year.
		Share.	Loan.	Share.	Loan.	
Manchester	399,108	£4,954,667	£445,966	£138,021	£358,331	£11,352,437
Newcastle	95,994	700,248	43,850	26,461	51,377	3,359,763
London	61,891	375,429	49,931	19,385	13,579	1,366,729
Totals	556,993	£6,030,344	£539,747	£183,867	£423,287	£16,078,929

DISTRICTS.	PURCHASES FROM WHOLESALE SOCIETY DURING THE YEAR.						Percentage of Purchases from Wholesale Society on the Total Sales.
	Groceries and Provisions.	Drapery.	Woolen Cloth.	Boots and Shoes.	Furniture and Hardware.	Total Purchases.	
Manchester	£2,445,804	£134,076	£15,416	£81,372	£31,851	£2,708,519	23.9
Newcastle	860,277	87,773	14,319	52,953	12,747	1,028,069	30.6
London	323,449	19,025	1,867	18,142	3,608	366,091	26.7
Totals	£3,629,530	£240,874	£31,602	£152,467	£48,206	£4,102,679	25.5

The inspection of the preceding table develops a curious fact. Although the coöperative wholesale society is a federation composed of the retail associations, its capital being evolved from shares taken up by the latter, yet a comparatively small part of the supplies of the retail stores are purchased by them from the wholesale. The table shows that during 1883 the purchases from the wholesale society were but 25.5 per cent of the total sales made by the retails. That is to say, although the fundamental principle upon which coöperative distribution rests is mutual trade in such manner that profits may be saved and equitably divided among the traders, yet when the associations themselves become buyers they have not adhered to this principle so far as to confine their purchases to the wholesale society founded by themselves for the express purpose of carrying out more completely the fundamental coöperative idea. The English and Scottish wholesales at present supply only about one third of the goods required by the retail stores.

Undoubtedly a certain percentage of the balance of purchases made by the retails is made from other coöperative sources besides the wholesales, such, for instance, as coöperative corn (flour) mills in their immediate neighborhood, of which there are a number in England, but after this is conceded it must still be true that a large part of their purchases are made from private traders.

The reasons for this apparent neglect of what would seem to be the legitimate source of supply for the retail associations are no doubt various, and do not plainly appear. That the success which has attended the wholesales has abundantly justified their establishment is uncontested, and it must be admitted that the quality of the supplies furnished by them, like that of all supplies distributed upon the coöperative plan, is above criticism. It is, therefore, a little strange that no greater proportion of the wholesale trade of the stores falls into their hands. Especially is it strange, because this trade is altogether controlled by the leading coöperators of the kingdom, in that it rests entirely with the committees of the retail associations, who contend that coöperation rests upon a principle of mutual help as well as mutual pecuniary profit. If these representative bodies are, as may be supposed, imbued with the ideal upon which the movement rests, ought it not to be expected that in practice this ideal would be adhered to more closely?

This disposition to look elsewhere than to the wholesales for the purchase of supplies has, now that a considerable amount of coöperative capital is invested in the latter, in part contributed to an interesting phase of the coöperative movement.

In the first place, the general purposes of the coöperative societies, as stated by an authority fully competent to speak for them, is "that the business and the work done shall be done not in the interest of, nor in order to enrich, one individual, or a few, but in the interest of the general body of those who are concerned." Now it is apparent that whenever purchases are made outside the coöperative wholesales a profit which otherwise would be saved is paid to private traders. To this extent, therefore, the general purpose, as above stated, is disregarded.

But other results follow. Capital accumulates with the wholesales to a greater extent than can be used in the ordinary trade proceeding from the retail stores. To discourage the investment of the surplus capital of the latter would discourage the thrift which is one of the best outgrowths of the coöperative system, inasmuch as it would at once turn back upon the retail societies the savings of profits left in their hands as undrawn interest-bearing dividends by their members, and leave them with a surplus which ofttimes could not otherwise be profitably used.

Considerable amounts of capital have thus from time to time accumulated with the English wholesale, which might have been made available in distributive trade had the entire wholesale trade of the societies been given to it. This surplus if deposited in bank would, indeed, draw the usual rate of interest on deposits, but would, of course, be loaned by the bankers in the ordinary course of business at a much higher rate. Here again, therefore, a profit would fall into the pockets of individuals which ought to be saved to the coöperative membership, and in this instance, as well as in every case where supplies are purchased outside the wholesales, coöperative capital would be used to benefit competitive trade.

This condition of affairs, soon perceived by those interested in the extension of the coöperative idea, was instrumental in engrafting upon the wholesale society, which until then had attempted nothing beyond coöperative distribution, a system of production. An avenue of investment was needed for the investment of surplus capital, and it was desirable that this capital, if possible, should be directed into coöperative channels. Certain staple articles were in constant demand by the retail associations. If such articles were purchased by the wholesale to be resold to the retail stores, or if they were purchased by the retail stores directly from the producers, competitive trade was directly benefited. It was also desirable to keep travelers for private firms out of coöperative stores, and as far as possible equip the wholesale store with everything needed by the retails. What more natural, therefore, than that the wholesale society should undertake the manufacture of such articles, using for that purpose the surplus capital accumulating in its hands?

To employ this capital in productive enterprises involved a new departure, which was not undertaken without full discussion. This discussion has not yet entirely ceased. It was held then, and is still held, that the wholesale society should confine itself to distribution and leave production to other organizations. If the wholesale were to engage in manufacturing, it would become a powerful and injurious competitor with small and struggling productive societies, whom it ought rather to aid by liberal loans of capital. Finally, both plans were adopted. Large advances were made to productive companies, and experiments were cautiously begun in coöperative manufacturing under the direct management of the wholesale society.

The first productive department opened was the manufactory of biscuits, confections, and soap, at Crumpsall, near Manchester. From these works none but registered coöperative societies are supplied. The establishment is equipped with the best machinery; in the baking department flour from coöperative mills is used, and goods free from adulteration are produced.

The Crumpsall works were started in 1873. During the same year a boot and shoe manufactory at Leicester was founded, confined to light goods, and, in 1880, a factory for the production of heavy boots and shoes was put in operation at Heckmondwike, in Yorkshire. More than eight hundred styles of men's, women's, children's, and infants' shoes are produced at Leicester, and both establishments make goods to measure upon special orders. Nothing but genuine goods are made, and paper or composition as a substitute for leather have never been used.

Since 1874, the society has also carried on the manufacture of soap upon a limited scale at Durham.

The productive departments conducted by the wholesale society have been generally successful, as will appear from the following table showing the average percentage of profit on capital employed for the year ending September 22, 1883, and also from the commencement of each department.*

DEPARTMENTS.	Percentage of Profit for year ending September 22, 1883.	Percentage of Profit from commencement of work.
Crumpsall	22½	13¼
Leicester	5⅞	7⅕
Durham	3½	3¾
Heckmondwike	5⅝	Loss 1½

The result is certainly not much to boast of in the shape of direct profits, but it must be remembered that in addition to the usual difficulties of a new establishment in each case, the private manufacturers who were already selling to the stores had to be displaced, and that this could only be accomplished by goods of sterling quality at low prices; so that if the stores have not received large dividends directly from the wholesale, their members have benefited by the low prices at which sterling quality goods have been supplied to them. And it is not a small thing to be able to say that in a series of years which have resembled a prolonged panic, when individual traders and joint stock companies have been falling into bankruptcy on every side, no failure has occurred in any of the direct adventures of the wholesale society. †

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* Coöperative Annual, 1884.

† Dr. John Watts. Coöperative Annual, 1884.

The investments made in outside companies have not been so successful, a loss of £52.057 being reported up to the year 1884 upon loans of this sort. The shipping enterprises of the wholesale have not returned a direct profit, but the advantages of being brought into close communication with foreign producers, and of being independent of private ship owners, are thought to more than offset the lack of direct financial returns. As a rule, however, as in the productive departments, the investments wholly controlled by the society have proved more profitable than those in which the society had a partial interest only. The vessels owned by the society have many times gained a profit while those chartered for its use from private owners have been sailed at a loss. This is graphically shown by the record of the steamship "Cambrian," on the Goole-Calais and Goole-Hamburg lines, which was sailed thirty-three voyages on charter at a total loss of over £533, and was then purchased by the society, her subsequent one hundred and four voyages returning a profit of more than £1.455. The extension of the shipping business is contemplated, and it would not be surprising if further productive enterprises were undertaken. For capital still continues to accumulate faster than trade increases.

> It is plain that if the coöperative wholesale is to increase and flourish in the future as it has done in the past, it must find more employment for its capital. In 1864 it turned over its capital twenty-one times in thirty weeks. In 1874 its capital was turned over fifteen times. In 1883 its capital is being turned over at the rate of seven times in the year. If, in the two or three years prior to the panic, its capital had been as fully employed for its own purposes as it was from 1864 to 1870, the companies which depleted it of £58,000 would never have sought advances, or if they had sought would not have obtained them, for the wholesale would have been in a position to say, "No, gentlemen, what you ask is beyond our power." Capital, to be kept safely, must be kept at work. The wholesale neglects one of the most important duties laid upon it if it ceases to be the depository of the savings of the stores, for then it encourages the consumption of the quarterly dividends and contributes only to the present enjoyment instead of to the permanent welfare of its members. If, however, it receives money it must get leave to employ it, and the modes of employment at present in the power of the wholesale are few.*

From the foregoing it will be seen that whatever difficulties surround the administration of the coöperative stores the lack of capital is not one. As the stores perform the functions of savings banks of deposit a glut of capital becomes itself a difficulty not easily overcome in the absence of avenues of investment at once safe, remunerative, and in harmony with coöperative principles. Although the number of shares which may be held by one person is limited to two hundred, it is part of the policy of the societies to encourage the investment on the part of members of whatever savings they may be able to make in any way out of their wages as loan capital, and if it could be profitably used the capital of the stores might be indefinitely increased. No question is more frequently discussed than this of making the surplus capital productive.

STATISTICAL ABSTRACT.

The growth and present condition of the coöperative movement may be presented statistically in four tables, which follow.

These tables are based upon the returns made to the Registrar, corrected by data in the possession of the Central Coöperative Board. For their compilation in all years, except the last, we are indebted to the Statistical Annual issued by the Coöperative Wholesale Society, Limited. For the year 1883 we have used the abstract of the Registrar's returns contained in the report of the Central Board to the Congress of 1885. The statistics include a few productive societies, viz.: Thirty-eight in 1883, and the societies on the civil service supply plan, but the larger part of the societies are distributive societies on the Rochdale plan. A few are distributive societies supplying special articles, such as bread, flour, coal, furniture, coffee, etc. No land or building societies are included.

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*Dr. John Watts.

Of the societies on the civil service plan in the year 1883, two are in England—the Civil Service Supply Association, London, and the Portsmouth Supply Association—and two in Scotland. These are the only societies on that plan included in the returns. The two English societies had a total membership at the end of the year of four thousand nine hundred and sixteen; sales during the year, £1,676,883; stock at the end of the year, £333,139; trade expenses, £157,746; share capital, £344,875; loan capital, £25,916; net profit for the year, £47,018. The two Scottish societies' membership was four thousand nine hundred and forty-eight; sales during the year, £161,634; stock at the end of the year, £29,335; trade expenses, £13,404; share capital, £17,137; no loan capital; net profit for the year, £6,744.

With these explanations the tables are presented.

STATISTICS OF COÖPERATIVE SOCIETIES IN THE UNITED KINGDOM—1862-1883.

YEAR.	NUMBER OF SOCIETIES.			Number of Members	CAPITAL AT END OF YEAR.		Sales	Net Profit	Trade Expenses	Trade Stock	CAPITAL INVESTED IN—		Profit Devoted to Education	Amount of Reserve Fund
	Registered in the Year	Not Making Returns	Making Returns		Share	Loan					Industrial and Provident Societies, and sources other than Trade	Joint Stock Companies		
1862	(*a*)454	68	332	99,341	£428,376	£54,499	£2,333,523	£165,562	£127,749	......	......	......	......	......
1863	51	73	381	111,163	579,902	76,738	2,673,778	216,005	167,620	......	......	......	......	......
1864	146	110	394	129,429	684,182	89,122	2,836,606	224,460	163,147	......	......	......	......	......
1865	101	182	403	124,659	819,367	107,263	3,373,847	279,226	181,766	......	......	......	......	......
1866	163	240	441	144,072	1,046,310	118,023	4,462,676	372,307	219,746	......	......	......	......	......
1867	137	192	577	171,897	1,475,199	136,734	6,001,153	398,578	255,923	£583,539	(*c*)£494,429	......	£3,203	£32,629
1868	190	93	673	211,781	1,711,643	177,706	7,122,360	424,420	294,451	671,165	137,397	£166,398	3,636	33,109
1869	65	133	754	229,861	1,816,672	179,054	7,353,363	438,101	280,116	784,847	117,586	178,367	3,814	38,630
1870	67	153	748	248,108	2,035,626	197,029	8,201,685	553,435	311,910	912,102	126,736	201,876	4,275	52,990
1871	56	235	746	262,188	2,305,951	215,453	9,463,771	666,399	346,415	1,029,446	145,004	262,594	5,097	66,631
1872	141	113	935	330,550	2,969,573	371,541	13,012,120	936,715	479,130	1,383,063	318,477	382,846	6,696	93,601
1873	226	138	983	387,765	3,581,405	496,830	15,639,714	1,110,658	556,540	1,627,402	370,402	449,039	7,107	102,722
1874	130	232	1,031	412,733	3,905,093	587,342	16,374,053	1,228,038	594,455	1,781,053	418,301	522,081	7,919	116,829
1875	117	285	1,170	480,076	4,403,547	849,990	18,499,901	1,429,090	686,178	2,095,675	667,825	553,454	10,879	241,930
1876	82	177	1,167	508,067	5,141,390	919,772	19,921,054	1,743,980	1,279,856	2,664,012	......	......	......	......
1877	67	246	1,148	529,081	5,445,449	1,073,275	21,390,447	1,924,551	1,381,961	2,648,282	......	......	......	......
1878	52	121	1,185	560,993	5,647,443	1,145,717	21,402,219	1,837,660	1,491,607	2,609,729	......	......	......	......
1879	52	146	1,151	572,621	5,755,522	1,496,313	20,382,772	1,857,790	1,537,138	2,857,214	......	......	......	......
1880	69	100	1,183	604,063	6,232,093	1,341,290	23,248,314	(*b*)1,868,599	1,429,160	2,880,076	(*d*)3,429,940	17,407	13,910	......
1881	66	......	1,240	643,617	6,940,173	1,483,583	24,945,063	1,981,109	......	3,053,333	......	......	13,825	......
1882	51	108	1,156	655,045	7,298,441	1,464,059	26,598,295	2,108,498	1,625,170	3,279,374	4,085,871	......	14,730	......
1883	42	151	1,153	680,165	7,467,849	1,524,341	28,089,310	2,318,932	1,727,875	3,196,460	4,395,786	......	15,754	......

(*a*) The total number registered to December 31, 1862.

(*b*) Estimated on the basis of the returns made to the Central Coöperative Board for 1881.

(*c*) Includes joint stock companies.

(*d*) The return states this sum to be investments other than in trade, which may mean investments in the wholesale societies, corn mills, joint stock companies, building departments, banks, mortgages, loans, etc.

STATISTICS OF COÖPERATIVE SOCIETIES IN GREAT BRITAIN—1862-1883.

YEAR.	NUMBER OF SOCIETIES.			Number of Members	CAPITAL AT END OF YEAR.		Sales	Net Profit	Trade Expenses	Trade Stock	CAPITAL INVESTED IN—		Profit Devoted to Education	Amount of Reserve Fund
	Registered in the Year	Not Making Returns	Making Returns		Share	Loan					Industrial and Provident Societies, and sources other than Trade	Joint Stock Companies		
1862	(a)454	68	332	90,341	£428,376	£54,499	£2,333,523	£165,562	£127,749	....	....	....	....	....
1863	51	73	381	111,163	579,902	76,738	2,673,778	216,005	167,620	....	....	....	....	....
1864	146	110	394	129,429	684,182	89,122	2,836,606	224,460	163,147	....	....	....	....	....
1865	101	182	403	124,659	819,367	107,263	3,373,847	279,226	181,766	....	....	....	....	....
1866	163	240	441	144,072	1,046,310	118,023	4,462,676	372,307	219,746	....	....	....	....	....
1867	137	192	577	171,897	1,475,199	136,734	6,001,153	398,578	255,923	£583,539	(c)£494,429	....	£3,203	£32,629
1868	190	93	673	211,781	1,711,643	177,706	7,122,360	424.420	294,451	671,165	137,397	£166,398	3,636	33,109
1869	65	133	754	229,861	1,816,672	179,054	7,353,363	438,101	280,116	784,847	117,586	178,367	3,814	38,630
1870	67	153	748	248,108	2,035,626	197,029	8,201,685	553,435	311,910	912,102	126,736	204,876	4,275	52,990
1871	56	235	746	262,188	2,305,951	215,453	9,463,571	666,399	346,415	1,029,446	145,004	262,594	5,097	66,631
1872	138	104	927	339,986	2,968,758	371,531	12,992,345	935,551	477,846	1,383,063	318,477	382,846	6,696	93,601
1873	225	135	978	387,301	3,579,962	496,740	15,623,553	1,109.795	555,766	1,627,402	370,402	449,039	7,107	102,722
1874	128	227	1,026	412,252	3,903,608	586,972	16,358,278	1,227,226	593,548	1,781,053	418,301	522,081	7,949	116,829
1875	116	283	1,163	479,284	4,793,909	844,620	18,484,382	1,427,365	685,118	2,094,325	667,825	553,454	10,879	241,930
1876	82	170	1,165	507,857	5,140,219	919,762	19,909,699	1,742,501	1,279,392	2,664,042	....	....	....	....
1877	66	240	1,144	528,576	5,437,959	1,073,265	21,374,013	1,922,361	1,381,285	2,647,309	....	....	....	....
1878	52	119	1,181	560,703	5,645,883	1,145,707	21,385,646	1,836,371	1,493,842	2,609,729	....	....	....	....
1879	51	146	1,145	573,084	5,747,907	1,496,143	20,365,602	1,856,308	1,536,282	2,857,214	....	....	....	....
1880	67	100	1,177	603,541	6,224,271	1,341,190	23,231,677	(b)1,866,839	1,428,303	2,878,832	(d)3,429,935	17,407	13,910	....
1881	62	....	1,230	642,783	6,937,284	1,483,583	24,926,005	1,979,576	....	3,051,665	....	....	13,822	....
1882	51	108	1,145	654,038	7,289,359	1,463,959	26,573,551	2,106,958	1,625,170	3,279,374	4,085,871	....	14,730	....
1883	42	151	1,095	679,294	7,459,139	1,524,241	28,065,809	2,317,150	1,726,487	3,194,875	4,388,545	....	15,754	....

(a) The total number registered to December 31, 1862.
(b) Estimated on the basis of the returns made to the Central Coöperative Board for 1881.
(c) Includes joint stock companies.
(d) The return states this sum to be investments other than in trade, which may mean investments in the wholesale societies, corn mills, joint stock companies, building departments, banks, mortgages, loans, etc.

STATISTICS OF COÖPERATIVE SOCIETIES IN ENGLAND AND WALES—1862-1883.

YEAR.	NUMBER OF SOCIETIES.			Number of Members	CAPITAL AT END OF YEAR.		Sales	Net Profit	Trade Expenses	Trade Stock	CAPITAL INVESTED IN—		Profit Devoted to Education	Amount of Reserve Fund
	Registered in the Year	Not Making Returns	Making Returns		Share	Loan					Industrial and Provident Societies, and sources other than Trade	Joint Stock Companies		
1862	(a)454	68	332	90,341	£428,376	£54,499	£2,333,523	£165,562	£127,749	------	------	------	------	------
1863	51	73	381	111,163	579.902	76,738	2,673,778	216,005	167,620	------	------	------	------	------
1864	146	110	394	129,429	684,182	89,122	2,836,606	224,460	163,147	------	------	------	------	------
1865	101	182	403	124,659	819,367	107,263	3,373,847	279,226	181,766	------	------	------	------	------
1866	163	240	441	144,072	1,046,310	118,023	4,462,676	372,307	219,746	------	------	------	------	------
1867	137	192	577	171,897	1,475,199	136,734	6,001,153	398,578	255,923	£583,639	(c) £494,429	------	£3,203	£32,629
1868	190	93	673	211,781	1,711,643	177,706	7,122,360	424,420	294,451	671,165	137,397	£168,398	3,636	33,109
1869	65	133	754	229.861	1,816,672	179,054	7,353,363	438,101	280,116	784,847	117,586	178,367	3,814	38,630
1870	67	153	748	248,108	2,035,626	197,029	8,201,685	553,435	311,910	912,102	126,736	204,876	4,475	52,990
1871	56	235	746	262,188	2,305,951	215,453	9,463,771	666,399	346,415	1,029,446	145,004	262,594	5,097	66,631
1872	113	66	749	301,157	2,786,965	344,509	11,397,225	809,237	419,567	1,219,092	300,712	380,043	6,461	79,292
1873	186	69	790	340,930	3,344,104	431,808	13,651,127	959,493	488,464	1,439,137	337,811	443,724	6,864	83,149
1874	113	177	810	357,821	3,653,582	498,052	14,295,762	1,072,139	517,445	1,572,264	386,640	510,057	7,486	98,732
1875	98	237	926	420,024	4,470,857	742,073	16,206,570	1,250,570	598,080	1,852,437	630,400	538,140	10,454	220,011
1876	72	113	937	444,547	4,825,642	774,809	17,619,247	1,541,384	1,137,053	2,377,380	------	------	------	------
1877	58	186	896	461,666	5,092,958	916,955	18,697,788	1,680,370	1,222,664	2,310,041	------	------	------	------
1878	48	65	963	490,584	5,264,855	965,499	18,719,081	1,583,925	1,315,364	2,286,795	------	------	------	------
1879	40	106	937	504,117	5,374,179	1,324,970	17,816,037	1,598,156	1,353,832	2,486,704	------	------	------	------
1880	53	62	953	526,686	5,806,545	1,124,795	20,129,217	(b)1,600,000	1,285,875	2,512.039	(d)3,226,370	------	13,262	------
1881	50	------	971	552,353	6,431,553	1,205,145	21,276,850	1,657,564	------	2,585,443	------	------	13,314	------
1882	51	71	900	566,338	6,794,624	1,150,006	22,839,728	1,784,454	1,442,585	2,818,950	3,729,675	------	14,039	------
1883	42	150	870	576,477	6,871,590	1,165,956	23,583,503	1,926,488	1,516,800	2,727,146	4,012,083	------	14,869	------

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(a) The total number registered to December 31, 1862.

(b) Estimated on the basis of the returns made to the Central Coöperative Board for 1881.

(c) Includes joint stock companies.

(d) The return states this sum to be investments other than in trade, which may mean investments in the wholesale societies, corn mills, joint stock companies, building departments, banks, mortgages, loans, etc.

STATISTICS OF COÖPERATIVE SOCIETIES IN SCOTLAND—1872-1883.

Year.	Number of Societies.			Number of Members.	Capital at End of Year.		Sales	Net Profit.	Trade Expenses.	Trade Stock.	Capital Invested in—		Profit Devoted to Education	Amount of Reserve Fund.
	Registered in the Year	Not Making Returns	Making Returns		Share	Loan					Industrial and Provident Societies, and sources other than Trade	Joint Stock Companies		
1872	25	38	178	38,829	£181,793	£27,022	£1,595,120	£126,314	£58,279	£163,971	£17,765	£2,803	£235	£14,309
1873	39	66	188	46,371	235,858	64,932	1,972,426	150,302	67,302	188,265	32,591	5,315	243	19,573
1874	15	50	216	54,431	250,026	88,920	2,062,516	155,087	76,103	208,789	31,661	12,024	463	18,097
1875	18	46	237	59,260	323,052	102,547	2,277,812	176,795	87,038	241,888	31,425	15,314	425	21,919
1876	10	57	228	63,310	314,577	144,953	2,290,452	201,117	142,339	286,662	......	......	......	......
1877	8	54	248	66,910	345,001	156,310	2,676,225	241,991	158,621	337,268	......	......	......	......
1878	4	54	218	70,119	381,028	180,208	2,666,565	252,446	178,478	322,934	......	......	......	......
1879	11	(*a*) 40	208	68,967	373,728	171,173	2,549,565	258,152	182,450	370,510	......	......	......	......
1880	14	38	224	76,855	417,726	216,395	3,102,460	266,839	142,428	366,793	203,565	17,407	648	......
1881	12	9	259	90,430	505,731	278,438	3,649,155	322,012	......	466,222	......	......	508	......
1882	......	37	245	87,700	494,735	313,935	3,733,823	322,504	182,585	462,424	356,196	......	691	......
1883	......	1	275	102,817	587,549	358,285	4,482,306	390,662	209,687	467,729	376,462	......	885	......

(*a*) Estimated.

STATISTICS OF COÖPERATIVE SOCIETIES IN IRELAND—1872-1883.

Year.	Registered in the Year	Not Making Returns	Making Returns	Number of Members.	Share	Loan	Sales	Net Profit.	Trade Expenses.	Trade Stock.	Industrial and Provident Societies, and sources other than Trade	Joint Stock Companies	Profit Devoted to Education	Amount of Reserve Fund.
1872	3	9	8	564	£1,815	£10	£19,775	£1,164	£1,284	......	......	......	......	......
1873	1	3	5	464	1,443	90	16,161	863	774	......	......	......	......	......
1874	2	5	5	481	1,485	370	15,775	812	907	......	......	......	......	......
1875	1	2	7	792	9,638	5,370	15,519	1,725	1,060	£1,350	......	......	......	£67
1876	......	7	2	210	1,171	10	11,355	1,479	464	......	......	......	......	......
1877	1	6	4	505	7,490	10	16,434	2,190	676	973	......	......	......	......
1878	......	2	4	290	1,560	10	16,573	1,289	765	......	......	......	......	15
1879	1	......	6	537	7,615	200	17,170	1,482	856	......	......	......	£45	71
1880	2	......	6	522	7,822	100	16,637	1,760	857	1,244	£5	......	......	......
1881	4	......	10	834	2,889	......	19,058	1,533	1,039	1,668	8	......	3	......
1882	......	......	11	1,007	9,082	100	24,744	1,540	1,758	1,812	......	......	......	......
1883	......	......	8	871	8,710	100	23,501	1,782	1,388	1,585	7,241	......	......	......

The preceding tables show that in the United Kingdom, since 1862, the number of societies, including those making and those not making returns, has risen from four hundred to one thousand three hundred and four, an increase of 226 per cent, while the membership based upon the returns has risen from ninety thousand three hundred and forty-one to six hundred and eighty thousand one hundred and sixty-five, an increase of 652+ per cent. During this time the total sales amount to £303,326,024, and the total net profit to £24,084,113; the latter amount representing capital saved to the members by this mode of trading, it being the sum divided among members since 1862.

It will be seen that considerable amounts have been invested, devoted to educational purposes, etc.

The tables show that the coöperative movement has not made uniform progress in all parts of the Kingdom. England and Wales contain the largest proportion of the societies; Scotland stands next, while in Ireland the movement is yet in its infancy. Beginning with the year 1872, comparisons may be made, showing the progress in each division of the United Kingdom, and for this purpose we present the following tables:

COÖPERATION IN ENGLAND AND WALES—1872–1883.

CLASSIFICATION.	1872.	1883.	Percentage of Increase.
Societies making returns	749	870	16.2
Number of members	301,157	576.477	91.4
Capital, share and loan	£3,131,474	£8,037.546	156.6
Sales	£11,397.225	£23,583,503	106.9
Profits	£809,237	£1,926,488	138.0
Devoted to education	£5,097	£14,869	191.7

COÖPERATION IN SCOTLAND—1872–1883.

CLASSIFICATION.	1872.	1883.	Percentage of Increase.
Societies making returns	178	275	54.4
Number of members	38,829	102,817	164.7
Capital, share and loan	£208.815	£945,834	352.9
Sales	£1,595,120	£4.482,306	181.0
Profits	£126,314	£390,662	209.2
Devoted to education	£235	£885	276.5

COÖPERATION IN IRELAND—1872–1883.

CLASSIFICATION.	1872.	1883.	Percentage of Increase.
Societies making returns	8	8	----------
Number of members	564	871	54.4
Capital, share and loan	£1,825	£8,810	382.7
Sales	£19,775	£23.501	18.8
Profits	£1,164	£1,782	53.0
Devoted to education	----------	----------	----------

These tables show in England and Wales, from 1872 to 1883, an increase of 16.2 per cent in number of societies, and 91.4 per cent in membership. Capital increased, 156.6 per cent; sales, 106.9 per cent; and profits, 138.0 per cent. The ratio of progress in Scotland, it appears, is greater than that in England and Wales, the increase in societies in that country being 54.4 per cent; in membership, 164.7 per cent; in capital, 352.9 per cent; in sales, 181.0 per cent; and in profits, 209.2 per cent. The progress in Ireland is comparatively slight.

It has been estimated that the membership of the societies must be quadrupled if we would arrive at the total population connected with the movement. This would give a total of two million seven hundred and twenty thousand six hundred and sixty for the year 1883. In the northwest of England, especially, the movement has great strength, and it has been stated that, in this section at least, one fourth of the population in the larger towns procure their supplies from coöperative stores, and that this is true also of the entire counties of Durham and Northumberland.

It is interesting to note that the average amount of sales to each member, which in 1862 was £25.83, has in 1883 become £41.31. The ratio of expenses to members has considerably increased also, the average in 1862 being £1.41 to each member, and in 1883, £2.54. The average net profit to each member has nearly doubled, it being £1.83 in 1862, and £3.41 in 1883. The percentage of net profit upon share and loan capital was 34.2+ in 1862, and 25.7+ in 1883.

The following table, showing the sales of all general distributive societies on the Rochdale plan, which, during the years 1866 to 1883, exceeded £200,000 a year, exhibits the progress of the larger stores, and the strength of the movement in various localities:

Coöperative Societies with Sales Exceeding £200,000 Yearly.

Names of Societies.	Counties.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.
Rochdale Equitable Pioneers	Lancashire	£249,122	£283,942	£290,540	£236,439	£222,138	£246,674	£267,572	£287,212	£298,889
Coöperative Wholesale Society	Lancashire		331,744	412,240	507,217	677,734	758,764	1,153,132	1,636,950	1,964,829
Halifax Industrial	Yorkshire							235,730	264,137	273,186
Leeds Industrial and Corn Mill	Yorkshire								312,308	386,536
Oldham Industrial	Lancashire								213,600	237,845
Bury District	Lancashire								209,382	223,622
Totals		£249,122	£615,686	£702,780	£743,656	£899,872	£1,005,438	£1,656,434	£2,923,589	£3,384,907

Names of Societies.	Counties.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.
Rochdale Equitable Pioneers	Lancashire	£305,657	£305,191	£311,715	£299,039	£270,070	£283,655	£272,141	£274,627	£276,457
Coöperative Wholesale Society	Lancashire	2,247,395	2,697,366	2,827,052	2,705,625	2,645,331	3,339,681	3,574,095	4,038,238	4,546,891
Halifax Industrial	Yorkshire	270,499	237,754	237,447	209,751		207,539			206,058
Leeds Industrial and Corn Mills	Yorkshire	390,645	365,639	374,166	358,865	360,017	412,225	432,811	438,478	486,784
Oldham Industrial	Lancashire	253,438	284,977	316,903	279,999	261,813	303,012	310,387	320,336	335,672
Bury District	Lancashire	212,814	231,692	251,057	241,886	217,282	231,918	225,689	240,227	250,123
Manchester Equitable	Lancashire					208,513	242,966	242,535	254,124	258,935
Bolton	Lancashire							219,657	254,414	295,437
Gateshead	Durham							200,261	225,202	248,364
Barnsley British	Yorkshire								215,421	253,512
Oldham Equitable	Lancashire								210,581	235,678
Huddersfield	Yorkshire								201,718	208,710
Newcastle-upon-Tyne	Northumberland									239,877
Totals		£3,680,448	£4,122,619	£4,318,340	£4,094,985	£3,963,026	£5,020,996	£5,477,576	£6,673,366	£7,842,498

There were also in the year 1883, twenty-two general distributive societies on the Rochdale plan, whose sales were over £100,000 and under £200,000. Five of these were in Lancashire, six in Yorkshire, five in Durham, and one each in the Counties of Northumberland, Cumberland, Chester, Leicester, Devon, and Derbyshire.

Progress of the English Wholesale Societies from March, 1864, to June, 1885.

Year Ending—	Departments and Branches Added.	£5 shares taken up	Number of members belonging to shareholders	Capital.					
				Shares	Loans and Deposits	Trade and Bank Reserve Fund	Insurance Fund	Reserved Expenses	Total
October, 1864 (30 weeks)			18,337	£2,455	*				£2,455
October, 1865			24,005	7,182					7,182
October, 1866	Tipperary		31,030	10,968		£82			11,050
January, 1868 (65 weeks)			59,349	11,276	£14,355	682			26,313
January, 1869	Kilmallock		74,737	14,888	16,059	1,115			32,062
January, 1870	Limerick		79,245	16,556	22,822	1,280			40,658
January, 1871 (53 weeks)			89,880	19,015	22,323	2,826			44,164
January, 1872	Newcastle	5,835	114,588	24,410	25,768	1,910			52,088
January, 1873	Manchester Boot and Shoe; Crumpsall	6,949	134,276	31,352	112,589	2,916			146,857
January, 1874	Armagh; Manchester Drapery; Leicester; Cheshire; Waterford; Clonmel	13,899	168,985	48,126	147,949	1,613	£2,356		200,044
January, 1875	London; Tralee; Durham	17,326	198,608	60,930	193,594	5,373	3,385		263,282
January, 1876	Liverpool	22,254	249,516	78,249	286,614	8,910	5,834		379,607
January, 1877 (53 weeks)	New York; Goole Furnishing; S. S. "Plover" purchased; Cork	24,717	276,522	94,590	299,287	12,631	10,843	£634	417,985
January, 1878		24,979	274,649	103,091	287,536	14,554	12,556	788	418,525
January, 1879		28,206	305,161	117,657	291,939	16,245	15,127	1,146	442,114
December, 1879 (50 weeks)	Launch of S.S. "Pioneer;" Rouen; Goole Forwarding Depot	30,688	331,625	130,615	321,670	25,240	15,710	1,095	494,330
December, 1880	Heckmondwike	33,663	361,523	146,061	361,805	38,425	17,905	1,661	565,854
December, 1881	Copenhagen; purchase of S. S. "Cambrian"	34,351	367,973	156,052	386,824	16,037	18,644	2,489	580,046
December, 1882	Tea and Coffee Department, London	38,643	404,006	171,940	416,832	20,757	19,729	2,945	632,203
December, 1883	Purchase of S. S. "Marianne Briggs"	41,783	433,151	186,692	455,879	20,447	21,949	6,214	691,181
December, 1884 (53 weeks)	Hamburg; Bristol; S. S. "Progress"	45,099	459,734	207,080	494,840	25,126	24,324	9,988	761,358
June, 1885 (26 weeks)		49,393	491,000	225,822	510,529	28,268	27,310	6,496	798,425

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* Included in shares.

PROGRESS OF THE ENGLISH WHOLESALE SOCIETIES—Continued.

YEAR ENDING—	Departments and Branches Added.	Net Sales	COMPARISON WITH PREVIOUS YEAR.		DISTRIBUTIVE EXPENSES.		Net Profit	Average Dividend Paid per £	Transferred to Reserve and Insurance Funds
			Increase	Percentage	Amount	Rate per £ on Sales			
October, 1864 (30 weeks)		£51,857			£347	1¾	£267	d.1½	
October, 1865		120,754			906	1¾	1,858	3½	
October, 1866	Tipperary	175,489	£54,735	45¼	1,615	2⅛	2,310	3	£234
January, 1868 (65 weeks)		331,744	112,688	51⅜	3,135	2¼	4,411	3	450
January, 1869	Kilmallock	412,240	124,063	43	3,338	1⅞	4,862	2¾	416
January, 1870	Limerick	507,217	94,977	23	4,644	2⅛	4,248	1¾	542
January, 1871 (53 weeks)		677,734	159,379	30¾	5,583	1⅞	7,626	2¼	1,620
January, 1872	Newcastle	758,764	86,559	12⅞	6,853	2⅛	7,867	2¼	1,036
January, 1873	Manchester Boot and Shoe; Crumpsall	1,153,132	394,368	51⅞	12,811	2⅝	11,116	2¼	3,243
January, 1874	Armagh; Manchester Drapery; Leicester; Cheshire; Waterford; Clonmel	1,636,950	483,818	41⅞	21,147	3	14,233	2	922
January, 1875	London; Tralee; Durham	1,964,829	327,879	20	28,436	3⅜	20,684	2	5,461
January, 1876	Liverpool	2,247,395	282,566	14⅜	31,555	3⅜	26,750	2⅜	7,826
January, 1877 (53 weeks)	New York; Goole Furnishing; S. S. "Plover" purchased; Cork	2,697,366	401,095	17½	42,436	3¾	36,979	2⅜	4,925
January, 1878		2,827,052	188,897	7⅛	43,169	3⅝	29,189	2	579
January, 1879		2,705,925	*121,427	*4⅜	43,093	3¾	34,959	2⅛	5,970
December, 1879 (50 weeks)	Launch of S. S. "Pioneer;" Rouen; Goole Forwarding Depot	2,645,331	22,774	0⅞	41,309	3¾	42,764	2¾	8,060
December, 1880	Heckmondwike	3,339,681	611,282	22⅜	47,153	3⅜	42,090	2⅜	10,651
December, 1881	Copenhagen; purchase of S. S. "Cambrian"	3,574,095	234,414	7	51,306	3⅜	46,850	2⅝	7,672
December, 1882	Tea and Coffee Department, London	4,038,238	464,143	12⅞	57,340	3⅜	49,658	2⅝	3,416
December, 1883	Purchase of S. S. "Marianne Briggs"	4,546,889	508,651	12⅕	66,057	3⅜	47,885	2⅝	3,176
December, 1884 (53 weeks)	Hamburg; Bristol; S. S. "Progress"	4,675,371	41,042	0⅞	70,343	3⅕	54,491	2¾	6,431
June, 1885 (26 weeks)		2,242,242	131,116	6⅛	36,846	3⅞	38,787	3⅞	7,527

* Decrease.

The total amount of sales shown in the foregoing tables is £43,329,995, while the expenses reach the total of £619,422, the rate of expenses per £ on total sales being 3⅜ per cent. The net profits amount to £529,884, affording an average dividend per £ of 2½*d*. The total amount transferred to the reserve and insurance funds is £80,157. The figures show conclusively the financial prosperity of this society and indicate so far as can be done by aggregates the volume of business transacted. In certain staples the trade is very large. For instance, the shipments of Irish butter for the year ending June, 1885, amounted to one hundred and sixteen thousand one hundred and sixty-eight firkins, the total weight of this article sold in the single quarter ending June 27, 1885, being fifteen thousand five hundred and seventy-seven hundredweights; and besides this thirty-one thousand nine hundred and seventy-seven hundredweights of other foreign butter was disposed of.

The value of tea sold for the year ending June, 1885, was £249,228; and of coffee, £36,457.

The business of the society is still increasing. Comparing the quarter ending June 27, 1885, with the corresponding period in the previous year, and the net value of goods increased 5⅜ per cent; the total capital—shares loans, deposits, reserves, and insurance—9½ per cent; the number of members belonging to the shareholding societies, 10 per cent; the number of societies holding shares, 5⅜ per cent; and the number of societies supplied with goods, 5⅜ per cent. On the twenty-seventh of June, 1885, the nominal value of land held by the society was about £83,624; of buildings, £109,692; and of steamships, £30,070.

In October, 1884, the total number of employés in the service of the society was one thousand five hundred and seventy, of whom about one half, or seven hundred and seventy-one, were engaged in the Leicester shoe works. One hundred and thirty-two were employed in the shoe works at Heckmondwike; two hundred and fifty-eight in the Manchester departments; one hundred and six at Newcastle; and the others at the various branches and upon the steamships.

When we remember that this institution rests entirely upon capital invested by workingmen, and largely upon capital saved through coöperative trade, these statistics afford conclusive evidence of the soundness of the principles upon which coöperative distribution rests, and of the clear business insight possessed by those who have controlled the affairs of the society.

Although the Scottish Wholesale Society is a much smaller institution, its record is also highly successful. We close our statistical abstract with a table showing its growth to the close of the year 1883:

PROGRESS OF THE SCOTTISH WHOLESALE SOCIETY.

YEARS.	Members in Share-holding Societies.	Share and Loan Capital.	Reserve Funds.	Sales.	INCREASE OF SALES OVER CORRESPONDING PERIOD OF PREVIOUS YEAR.	
					Amount.	Percentage.
1869	----------	£4,246	£90	£64,484	----------	--------
1870	----------	11,221	398	104,929	£40,445	62
1871	----------	16,177	932	135,872	30,943	29
1872	16,723	25,820	1,429	228,074	92,202	67
1873	20,496	46,862	1,792	361,856	133,782	58
1874	24,496	43,251	2,199	417,586	55,730	15
1875	27,029	54,388	2,375	412,010	*5,576	*1
1876	28,999	63,386	2,675	440,757	28,747	6
1877	30,538	68,117	3,217	554,890	114,133	25
1878	33,934	80,028	3,357	603,906	49,016	8
1879	35,768	85,554	3,983	611,626	7,720	1
1880	40,798	101,335	7,727	789,506	177,880	29
1881	48,097	122,864	10,407	937,828	148,322	18
1882	52,610	153,575	11,370	1,080,658	142,830	15
1883	57,252	174,413	13,678	1,202,998	122,340	11

* Decrease.

THE COÖPERATIVE UNION.

The coöperative societies are bound together by the organization of the Coöperative Union. This organization affords moral support to the societies, and through its executive, the Central Coöperative Board, is an effective agency in promoting their welfare, and an invaluable aid in disseminating information respecting the movement and in promoting the extension of coöperative work.

By its constitution the union declares its purpose to be "the promotion of the practice of truthfulness, justice, and economy in production and exchange." It proposes to effect this purpose:

(1) By the abolition of false dealing, either (*a*) *direct*, by representing any article produced or sold to be other than what it is known to the producer or vendor to be; or, (*b*) *indirect*, by concealing from the purchaser any fact known to the vendor material to be known by the purchaser, to enable him to judge of the value of the article purchased.

(2) By conciliating the conflicting interests of the capitalist, the worker, and the purchaser, through an equitable division among them of the fund commonly known as *profit*.

(3) By preventing the waste of labor now caused by unregulated competition.

This platform is broad and far reaching in its scope. It not only comprehends all that has yet been accomplished by the coöperative societies, but includes all that the ardent coöperator hopes to see realized in the future. It seeks a division of profit not only among consumers, but among capitalists and workers also, and aims, as coöperative advocates generally do, at restricting competition.

The union is open to all industrial and provident societies, friendly or building societies, trade unions or associations, joint stock companies or industrial partnerships, provided always that such societies or associations accept the statement of principles enunciated by the union and agree to be guided by them in business transactions, and agree:

To contribute to the congress fund an annual subscription, at the rate of 2*d.* for each member, or, in the case of industrial partnerships, each employé, up to five hundred. Contributions on any larger number of members give the controlling body, for each additional five hundred members, or fraction, for whom it pays at the rate above mentioned, the right to send an additional delegate to the annual congress, by which the union is governed.

The Central Board, as the executive of the union, is prepared to give legal and general advice to the societies in matters affecting their interests. It is also a statistical bureau collecting and collating information for their benefit, and, lastly, it is a propagandist agency aiming to disseminate coöperative principles especially in the United Kingdom but generally throughout the world.

In the coöperative organization the societies are grouped in sections, of which there are six, viz.: Midland, Northern, Northwestern, Scottish, Southern, and Western. Each of these societies contains approximately the following number of societies:

Midland, one hundred and ninety-six; Northern, one hundred and thirty-eight; Northwestern, four hundred and thirty-seven; Scottish, two hundred and ninety-five; Southern, one hundred and fifty-two; and Western, sixty-six. These returns include thirty-six productive societies, exclusive of the productive departments of the wholesale society. The societies in Ireland are attached to the Northwestern section. The sections, with the exception of the Western, are each subdivided into conference districts, the number of such districts in each section being as follows: Midland, nine; Northern, seven; Northwestern, fifteen; Scottish, ten; and Southern, nine.

Besides the general congress of the union, held annually, and composed of delegates from the societies in fellowship, local conferences are held in the various conference districts for the discussion of subjects in interest.

The affairs of each section are managed by local councils, annually elected by ballot by the societies in the sections respectively. These councils have the following number of members: Midland, nine; Northern, seven; Northwestern, eleven; Scottish, ten; Southern, nine; and Western, seven. These councils united constitute the Central Board.

The Executive Committee of the Central Board is termed the United Board, and consists of two representatives from each local council, except the Northwestern, which has three, and the Western, which has one.

The Central Board in its entirety meets twice each year, once just prior to the assembling of the congress and once immediately after the appointment of a new Board. The United Board meets three times each year, at Manchester. The executive of the United Board is termed an office committee, and its members are appointed from the general body by the Central Board at its first meeting in the year. Attached to the United Board is a paid staff comprising a Secretary, assistant Secretary, bookkeeper, and clerks.

The members of the several Boards and councils are paid traveling and other necessary expenses incurred in the performance of their duties.

The conference districts of the sections are variously organized; some have a Chairman, Secretary, and committee; others have in addition a statistical Secretary; others have a Secretary only, while a few have no officers.

At the congresses, reports are presented upon the condition of the societies in the various sections, papers are read upon coöperative subjects, and the usual discussions ensue. The congresses are opened by an inaugural address by some person of eminence, and it is customary to listen to a sermon from some noted divine. The rules of the congress provide for meetings upon two days only, but it is now usual to prolong the sessions to three days.

Among others, the following subjects have been discussed: The law relating to coöperation; associated homes; coöperative banking; methods of voting and auditing in coöperative societies, and the best methods of managing such societies; coöperative cottage building; education in connection with coöperation; credit; land and agriculture; bonus or profit sharing; prospects of coöperation; policy of high dividends; propagation and organization in the coöperative movement; surplus capital; trade unions; transferable or withdrawable shares; workingmen's clubs; coöperative journalism; coöperative production; a labor exchange; industrial partnerships, and wholesale distribution.

Addresses have been delivered by Thomas Hughes, Q. C. M. P., W. Morrison, M. P., Hon. Auberon Herbert, M. P., Joseph Cowen, M. P., Sir Thomas Brassey, M. P., Prof. Thorold Rogers, M. P., Prof. Hodgson, The Marquis of Ripon, Prof. Stuart, The Lord Bishop of Durham, The Earl of Derby, Lord Reay, Right Hon. W. Baxter, M. P., Sedley Taylor, Esq., and Mr. Lloyd Jones.

The statistics of the union are presented in the following table:*

YEARS.	Subscribing Societies.	No. of Members.	Subscriptions and Donations.			Places where Congress met.	Societies Represented.	No. of Delegates.
			£.	s.	d.			
1869	55		117	13	9	London	57	62
1870						Manchester	21	96
1871	183	86,139	220	11	10	Birmington	30	75
1872	202		396	7	1	Bolton	55	130
1873	253		922	8	8	Newcastle-on-Tyne	92	194
1874	357	197,476	1,375	6	11	Halifax	94	189
1875	352	219,150	1,495	10	5	London	71	114
1876	397	219,748	1,556	3	8	Glasgow	93	116
1877	430	249,228	1,764	2	8	Leicester	109	170
1878	450	246,214	1,939	0	3	Manchester	164	280
1879	469	270,665	1,980	13	7	Gloucester	85	130
1880	510	293,949	2,190	5	3	Newcastle-on-Tyne	113	199
1881	494	290,623	2,120	10	9	Leeds	154	275
1882	496	330,474	2,415	13	4	Oxford	141	217
1883	553	343,923	2,660	9	2	Edinburg	246	397
1884	606	518,971	3,043	9	2	Derby	243	425
1885	631	554,156	3,356	5	3	Oldham	255	578

The proceedings of the congresses are annually published. The Central Board, in the exercise of its function as a propagandist agency, also publishes and circulates, either by gift or sale, many pamphlets and documents upon coöperative subjects.

The Central Board has performed much work of a purely utilitarian nature, relating to the pecuniary and legal interests of the societies. Its labors of this kind may be understood from the following:

> The appointment of the present General Secretary † has, since 1873, secured to the members of the union legal advice free of charge; the publication in the same year of the model rules for land, building, and mortgages, prepared by the present Chief Registrar; followed, in 1874, by the general rules for industrial and provident societies, which have since been twice revised, and subsequently by the manuals on bookkeeping, on auditing, and on the system of checks; the various Acts relating to industrial and provident societies passed before 1876; the consolidation of these Acts, with many important amendments, in 1876; the extension of the power of nomination, by the provident nominations and small intestacies Act, up to the limit of £100; the explanations and forms relating to these nominations; the indexes and other documents of a general character, prepared and issued by the Central Office for the use of societies—are all instances of this action. Not less important has been the watchfulness of the central body against any attacks aimed at coöperation by its commercial opponents—of which the energetic action taken to prevent the interference with the liberty of the civil servants of the Crown in the disposal of their own time, threatened in 1881, is a startling instance.‡

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*Coöperative Annual, 1885.

† Edward V. Neale, Esq.

‡ This relates to an attempt on the part of certain private traders to prevent government employés assisting in the management of coöperative stores. Aimed ostensibly at the London supply associations, it would, if successful, have affected the operation of certain workingmen's associations elsewhere. It was defeated by the prompt action of the coöperative union.

The extension of coöperation is further assisted by the work of the Southern Guild of Coöperators, 31 Southampton Street, Strand, London, W. C., which exerts itself in the formation of new societies and in the education of the public in coöperative principles by means of public meetings.

The attentive reader of this report must perceive that so called coöperative distribution, upon the plan formulated by the Rochdale Pioneers, and as at present followed in the United Kingdom, having for its unit the retail store, possessing the advantage of strong and energetic wholesale societies, composed of and supported by the stores, and fostered by a Central Board and annual congresses, has been in the highest degree successful in what it has undertaken.

The organization, considered as a whole, is admirable, adapted to hold together the members, and to advance their common interests. Its success might have been predicted, for the whole movement rests upon approved and well recognized business principles. There seems to be no reason why similar enterprises might not be equally successful elsewhere if the same plan is followed.

Every store before it opens has its support assured in the trade of its members. If honest men are selected as officers, common prudence observed in the conduct of business, reasonable care exercised in the purchase of stock in trade, and the cash system strictly adhered to, failure should be impossible.

The business may expand as membership increases, and expenses may at all times be kept well in hand.

Of course, in the United States, the isolated store must miss the valuable help which the English stores have in the organization that has grown up as the movement in that country has gained strength; but, if stores were to multiply in America the same organization would follow here, and, meantime, the recorded experience of English effort, if availed of among us, would prevent serious errors in conduct of business.

It becomes proper then to review just what this movement has accomplished, and what, if anything, it has failed to achieve; and in entering upon this inquiry we desire to be perfectly fair, while at the same time presenting the actual facts. For, in justice to those who in this country are interested in coöperative effort, and may seek to establish such stores here, it is well clearly to point out its limitations as well as its possibilities, in order that no more may be expected than is likely to be realized.

In the first place, how far is this movement coöperative? The answer must be only so far as it rests upon the participation of all customers in the profits they produce by their trade. This is the sole coöperative feature. We speak broadly, and disregard for the moment the limited number of societies which have gone one step farther and allowed a share in profits to employés.

The division of profits upon the basis of purchases, and the restricting of stockholders to a fixed rate of interest on their capital stock, entitle these stores to the name coöperative, in distinction from the civil service distributive societies and other joint stock companies in which profits are divided upon the basis of stock. In the latter only stockholders gain from increase of trade. In coöperative stores all customers gain, and the store is open to all who come. The stockholder receives only his stipulated interest, that being the remuneration to which, as a capitalist, he is entitled. All who assist in making the profit share in its division. The principle is modified in its operation but not disregarded by the plan of allowing members to share at double the rate of non-members; for no limitation exists as to membership, and non-members may by a small payment become members at any time, and begin at once to share at the members' rate.

The stores are justly open to the criticism that while calling themselves coöperative, they are, except in the feature we have mentioned, not really so. Perhaps, considering the sense in which the term coöperation is used in economic discussion, and the persistency and good faith with which it is urged by many as a remedy for industrial evils, the name "Consumers Societies" would be more appropriate. For it is no detraction from the solid benefits these societies have reaped to admit that as yet they have done little to solve the vexed questions affecting labor and capital, or to advance coöperative principles as they are generally understood.

This mode of distribution is organized, economized, and made effective for consumers almost entirely, and producers, as such, are not materially benefited. The societies as purchasers keenly appreciate and follow the rule adopted by the private trader, buying at the lowest possible competition prices, and in their transactions with producers making use of the same expedients as those employed in private trade to drive good bargains, and thus swell profits for the benefit of their customers.

The maxim that "goods well bought are half sold" is kept constantly in view, and the importance of keen and shrewd buying is so well understood that employés possessing the requsite ability in this direction are highly prized and liberally paid. To the producer, therefore, this system of distribution offers no special advantages.

How does it affect the wage worker? The English wholesale conducts with coöperative capital a considerable manufacturing business, and production under the management of the societies is likely to increase. Supposing it to increase under the policy already pursued, what benefit would accrue to the employés other than those obtained from private employers? None. Exactly the same principles appear to govern the coöperative and the individual employer. The coöperative wholesale pays competition wages and manufactures its goods at the lowest possible labor cost. Its workmen have no share in profits.* Its object is to divide the largest possible profits among its customers. Its mode of operation is identical with that of the private employer.

This has, indeed, provoked criticism. Says one observer:

> The Coöperative Wholesale Society is a gigantic middleman: in its workshops it pays the lowest of competition wages. In the language of one of the workers in one of the shoe factories, "the workmen have to work for what they can get, they know there is no true coöperation." In its transactions with other producers it pays the lowest of competition prices; the profits made out of the retail prices are distributed amongst the members; labor is depressed. In short, it is as far from displaying a single feature of real coöperation as any private trader is who uses the weapons of competition and capitalism for his personal ends, regardless of the interests of others.
>
> The Coöperative Labor Association, whose principal object is to recognize the combined interests of capital and labor in productive enterprise, is largely composed of members of the coöperative movement. In a conference just held, a resolution was passed asking "the committee of the Labor Association to point out in a *fraternal* spirit to the Wholesale Coöperative Society the grave injury they are doing to the cause of coöperation by their failure to carry out coöperative principles in their productive works, and to offer their services in placing the wholesale workshops upon a true coöperative basis."†

So far then as relates to removing the evils which it is alleged spring from competition, these societies have not yet conspicuously succeeded. This does not indicate failure, for it does not appear that in practice much has been attempted in this direction. Probably any other course than that pursued would have diminished the profits which have been divided among the members. It is shrewd business management that has helped to amass these profits, and if the societies be judged solely by their success in what they have attempted no fault can be found.

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* The Scottish wholesale escapes this criticism. Its employés, as previously noted, share in dividends.

† "Distribution Reform," by Thos. Illingworth, p. 90–91. Cassell & Co., Publishers.

It is only when this success is used to attest the efficacy of coöperative theories, that the impartial critic must dissent. As a rule, the coöperative societies have contented themselves with financial success, leaving to the future the extension and application of the theories, which, up to this time, although seeming to disregard in practice, they have never ceased to discuss and advocate.

Whatever hope and future promise may rest in coöperation, it is not as a scheme for removing all the evils which many feel to be inherent in the present industrial organization that this plan of coöperative distribution is to be recommended. It may be a help, however. As a method of capital saving it affords the groundwork of a system of coöperative production, which might be made safe and remunerative so far as the market for product could be assured by the demands of the stores themselves. Such an assured market would materially relieve the coöperative producers from the struggle which must always be before them in any effort to secure a market in competition with private manufacturers. Taken for what it is, it has been of great benefit to the working classes in Great Britain, and under similar social conditions might be equally beneficial elsewhere.

It has brought to six hundred and eighty thousand one hundred and sixty-five members, £24,084,113, in profits, and, incidentally, it has produced other results which no statistics can adequately portray, results moral rather than material. It has stimulated thrift, taught self-reliance, encouraged the ownership of property, prevented debt by making cash payments obligatory, and placed in the hands of its patrons goods practically free from adulteration. In the English manufacturing towns it has promoted the social spirit by bringing members together in reunions and in educational work. And despite all criticism which may be made upon the slowness of these societies to advance farther upon the coöperative line, it must be conceded that there is much truth in the following from the pen of the able Secretary of the Central Board:

> The supporters of such a store have, as they ought to have, ample reasons for supporting it in their own interest. And those who join these institutions when they are successful too often have no other motive than the notion of personal advantage. Still the feeling that the store is an institution essentially unselfish, excluding no one from its benefits, founded for the common good of all who can be induced to take part in it*—this feeling, derived from the noble spirit of the original founders of these stores, has given a characteristic tone both to their own action and to the public appreciation of them. Their educational funds, their social parties, the attendance at public meetings connected with them, the absence of a disposition to ridicule their rejoicings at the founding of a new store, are proofs of this. There is a general perception that the coöperative society has in view an end beyond the private interest of those who set it up, which gives to these trading establishments a sort of consecration, even in the eyes of those who do not belong to them.†

Much of what has been done abroad through these societies is done in Massachusetts by the savings bank, the evening school, the public library, free lectures, and other institutions common here, and growing out of our conception of a free State and republican institutions. Much of the need for

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[*] In contradistinction to the joint stock companies, where the stock is limited.

[†] Coöperative Board Pamphlets.

these stores is also met in our larger towns by enterprising private concerns who put before the public the best goods at low cash prices. But still there is no doubt that in many towns the same financial benefits might accrue to any society formed and conducted on the Rochdale plan, the work being modified in some respects to meet local requirement, and to conform to the needs of American communities.* The experiment is one easily tried, not involving loss if carefully managed, and the results, if successful, well worth the effort.

APPENDIX.

The following pages present a condensed account of the position of productive coöperation in Great Britain, and of productive and distributive coöperation upon the European continent and in Australia.

For the material from which the account of continental and Australian coöperation was prepared, the bureau is mainly indebted to the report of a committee upon that subject to the Seventeenth Annual Coöperative Congress, held at Oldham, England, in May, 1885, the authorities upon which said report was based being noted in connection with each country respectively. The matter is of interest in considering the general subject of coöperation, and is of sufficient importance to warrant its presentation here.

As the record of a successful American experiment in distributive coöperation, upon a plan similar to that instituted at Rochdale, may be of value to others proposing to enter the field, we have also included an account of the Arlington Coöperative Association, at Lawrence, Massachusetts.

That form of coöperation known as "profit sharing" is treated in detail in Part II of the seventeenth annual report of this bureau (in Part I of which report this chapter on distributive coöperation is included), and is therefore not considered here.

COÖPERATIVE PRODUCTION IN GREAT BRITAIN.

The second step in coöperation, according to the leaders of the movement, is its application to production. The theorists, who have devoted their lives to the advancement of coöperative principles, will never rest satisfied with its application merely to the business of buying and selling commodities, however admirable the results may appear. To them the whole structure of coöperative distribution is but the foundation of a far nobler edifice. To utilize in production the capital saved in coöperative stores so as gradually to remove competition in industry is the end they hope finally to reach. Meantime their efforts are devoted to arouse the workingmen who are attached to the distributive societies to a deeper sense of the benefits of a coöperative system which would include production as well as distribution, and to overcome the indifference to other motives than those of immediate personal and pecuniary gain.

It is unfortunate that there seems to be no well-matured plan commending itself to general acceptance upon which coöperative production can go forward. Two distinct schools exist: The individualists and the federalists. The first hold that individual bodies of workingmen should start for themselves in productive enterprises, obtaining their capital either from their own savings or by loan. The business should then be conducted independently of the distributive societies, and managed by the workingmen immediately interested, who may, if necessary, go into the open market and secure trade by superior energy or on account of the high quality of their product. The federalists, on the other hand, believe that the federated stores should provide the basis for productive effort; the capital saved in the stores should be used; the demand of the stores should supply the necessary market, and the management should be by committee, precisely as the wholesale societies are managed. Either individual societies might begin by manufacturing goods to supply their local needs, or, as would seem more feasible, the wholesale societies, possessing a wider market, and able by their experience accurately to gauge production to demand, might proceed upon the plan already adopted in the Leicester Shoe Works.

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*See in this connection the account of the Arlington Coöperative Association, at Lawrence, Mass., contained in the appendix.

The individualist would permit individual shareholders; the federalist would not, believing such permission dangerous as tending to joint-stockism. Strict adherence to the federalist system, as usually presented, would exclude the worker from participation in profits, except in his function as *consumer* as a member of some store having capital invested in the works, and except as a bonus or gratuity might be given him for superior work or extraordinary skill. In the works at present conducted by the English wholesale society upon substantially this plan, the workers, as workers, do not share in profits at all.

The difficulties attending both systems, as well as their advantages, are apparent. If the workers provide their own capital and divide the profits among themselves, not alone in proportion to capital, but also in proportion to work done, the concern would be strictly coöperative, but its success would largely depend upon the fidelity and talent of the managers, requisite qualities not easily procured, and upon the possibility of securing a permanent and remunerative market. To obtain the latter would involve keen competition with private concerns already well established, or, if several coöperative societies were seeking a market for the same product, keen competition with each other. There is also the difficulty, by no means small, of securing the required capital. The risk is very great, and workingmen are poorly equipped to encounter it.

If, to overcome the difficulty as to capital, outside stockholders are admitted, the enterprise loses its strictly coöperative character, jealousy is likely to arise between workers and shareholders (capitalists), and the latter may at any time secure control and the concern become a purely joint stock company.

If, on the other system, the federated societies provide, as they may, both capital and market, the two great difficulties in the way of coöperative production may be overcome; overproduction may be guarded against; more or less capital may be utilized as occasion demands, and, practically, loss may be prevented.

But if profits are to be divided among consumers only, that is, if profits are to go to the stores which furnish the capital, and are then disseminated in the form of dividends on purchases to the patrons of the stores, the workers, as such, acquire no benefit not obtainable in private employment. The scheme is, after all, so far as the workers are concerned, not coöperative.

Some federalists advocate a bonus or share in profits to labor. In both schools many shades of individual opinion appear. Mr. Holyoake, for instance, ably advocates the participation of labor, capital, and custom (consumers) in profits; remunerating capital by a fixed rate of interest, and dividing the remainder between laborers and consumers, always providing that labor shall have an adequate self-protecting representation upon the directory. Such a plan, he believes, can only be adjusted and maintained by the system of federation, while, at the same time, he is for individualism, in the sense of securing the local capacity, the personal interest, and energy of the three parties, laborer, capitalist, and consumer, who, it appears to him, make up the force of coöperation.

Radically opposed to the theory of the consumer's right to share in the profits of production, Mr. J. M. Ludlow, the Registrar of Industrial and Friendly Societies, an individualist, would have production carried on by independent unions of workers, for whom, primarily, the profits should be reserved.

Dr. John Watts, however, an eminent federalist, rejects any plan of individual action, as tending to relapse into competition, and would divide the profits arising in federated production among the societies furnishing the capital in proportion to the capital furnished by each, and afterward to their members as dividends on purchases. This scheme, as pointed out by Messrs. Hughes and Neale, must undoubtedly cause the largest share of profits to go to the richer classes, they being the largest buyers; is essentially a division of profits on capital (joint stockism); and entirely overlooks the worker, as such. "The notion of so carrying on work that the worker may get the full benefit of his labor, after providing for the cost of capital, is replaced by that of so carrying it on that the consumers, whether producers or not, should get the greatest possible benefit out of it." *

Mr. Neale, while adhering to the federative scheme, as diminishing the risk that must inevitably accompany individual action, believes that in any system of coöperative production the worker should acquire the profits, after the remuneration of capital by payment of interest, and that the consumer ought not to share in the profits of production. He believes further,

> That it is quite practicable to carry on production in close connection with a distributive center, under conditions which will prevent any competitive conflict among the producers, without withdrawing from the workers any of the advantages derivable from their work.†

He has also clearly shown, enforcing his argument by the significant statistics of the extensive Leicester Shoe Works, and of the spinning companies at Oldham, that—

> Large as the total proceeds of any work may be, vast as may be the establishments where the production is carried on, imposing as the result may appear when the net profits of such great works are concentrated in the hands of a few persons, these profits when divided among the host of workers engaged in producing them will make but a small addition to the sum that those workers would earn. Naturally, if they are to be further diluted by division among the large body of persons who may have made purchases, the benefit must be proportionately diminished.‡

And he goes on to suggest that the collective income, instead of being frittered away in minute dividends to each worker, might, by agreement, be employed in associated action to create better conditions of life, such, for example, as private employers, like Sir Titus Salt, have attempted to confer upon their workpeople, or such as have been secured through the associated homes projected by M. Godin, at Guise.

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* Manual for Coöperators (published by the Central Coöperative Board), p. 133.

† Manual for Coöperators, p. 139.

‡ Seventeenth Annual Coöperative Congress; preface to report, p. 4.

While these various theories prevail, little has actually been done. Disregarding all such concerns as the spinning companies at Oldham, which, though frequently termed coöperative, are absolutely joint stock companies dividing profits on stock, held at present by workers chiefly, but liable at any time to change ownership, and, in any event, no different in principle or administration from the ordinary joint stock corporation, there are a few productive societies in Great Britain that permit workers, as workers, to share in profits and are managed by the workers themselves. Many of these have share capital also, to which part of the profits go, and some admit customers to participation in the dividend. The following table exhibits these societies at the beginning of 1884:

Coöperative Productive Societies.

Name.	Date Established.	Business.	Yearly Sales.	Yearly Profits.	Method of Dividing Profits.
Arnold Manufacturing	1868	Hosiers	£200		Between shareholders and workers.
Airedale Manufacturing	1872	Alpacas, cords, etc.	5,799	£427	Between shareholders, customers, and workers.
Cobden Mills	1867	Calicoes	52,264		Between shareholders and workers.
Coventry Watch-makers	1876	Watches	2,623	278	Between shareholders, customers, and workers.
Coöperative Printers	1869	Printers and stationers	33,589	2,789	Between shareholders, customers, and workers.
Dudley Nail-makers	1874	Nail-makers	1,212	83	Between shareholders and workers.
Dunfermline Manufacturing	1872	Damask table linen	1,672	67	No details.
Eccles Manufacturing	1861	Quilts and toilet covers	9,767	1,058	Between shareholders and workers.
Edinburgh Printers	1873	Printers and stationers	3,027	236	No details.
Frame-makers and Gilders, London	1858	Carvers, gilders, and general decorators	6,389		Between shareholders and workers.
Hebden Bridge Manufacturing	1870	Fustian cutters, etc.	22,103	1,980	Between shareholders, customers, and workers.
Howley Park Quarry	1872	Stone-workers	3,624	500	No details.
Lancashire and Yorkshire Productive	1873	Flannels	16,396	43	Between shareholders and customers.
Leek Silk Twist Manufacturing	1874	Silk thread	2,688	2	No details.
Leicester Manufacturing	1876	Hosiers	6,273	133	Between shareholders, customers, and workers.
Leicester Elastic Web	1878	Web-weavers	4,493	129	No details.
Sheepshed Manufacturing	1881	Hosiers	92		Between shareholders and workers.
Sheffield Cutlery Manufacturing	1873	Knives and scissors	439	69	No details.
Sheffield Haft and Scale Cutting	1876	Haft-makers	3,906	125	No details.
Paisley Manufacturing	1861	Plaids, shawls, etc.	11,891	568	Between shareholders, customers, and workers.
Northamptonshire Productive	1881	Boot-makers	1,662	128	Between shareholders and workers.
Walsall Manufacturing	1874	Lock-makers	3,986		No details.

The above table is extracted from "Workingmen Coöperators," page 103. The same work is also our authority for the statement, attributed to a leading coöperator, that two hundred and twenty-four coöperative productive societies registered under the Industrial and Provident Societies Act, have been dissolved. Of these, one hundred and fifty-six were small joint stock companies, with no coöperative element in them; forty-four divided profits between capitalists and customers, and twenty-four between capitalists, customers, and workers.

The Registrar's returns for the year ending December 3, 1883, exhibit thirty-four so called productive societies in England and Wales, and four in Scotland. But of these, fourteen were corn (flour) mills, in which it is not usual to admit workers to share in profits, and two were agricultural.

This brief record appears to be all that coöperative production has at present to exhibit in Great Britain.

COÖPERATION IN FRANCE.*

The social hopes fostered in France by the political revolution of 1848 were partly realized in the formation of large numbers of coöperative societies. The enthusiasm of the moment and the influence of government patronage stimulated the movement, but few possessed sufficient vitality to long survive. The reëstablishment of the empire in 1852 was an event at first decidedly unfavorable to their progress, but in 1864 coöperation at Paris once more revived, and later was assisted by favorable legislation. In 1870 twenty workingmen's coöperative societies engaged in production existed at Paris, and at present there are more than seventy such societies. Outside of Paris few such societies exist.

The following details are tabulated from statistics published by the Bureau des Associations Professionelles:

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* Authorities: M. Nicole, of the Consolidated Chamber of the Workingmen's Productive Association of the Department of the Seine. Evidence before a Parliamentary Commission. Report of the Bureau des Associations Professionelles.

The Coöperative Societies of Paris.

Name of the Association.		Date of Formation.	Capital.		Number of Associates.	Whether Auxiliaries Share in Profits.		Value of Work Done.
French.	English.		Subscribed.	Paid up.		No.	Yes.	
			£ s.	£ s.				£ s.
Appareils à gaz (Ouvriers fabricants d')	Working gas apparatus makers				15			
Arconnieurs ferreurs	Saddle-bow binders	July 1, 1881	180 00	140 00	7	No		3,400 00
Bâtiment (Société générale du)	Builders	Jan. 24, 1882	20,000 00	5,000 00	191	No		8,000 00
Bijoutiers en doré (Association des)	Different kinds of jewelers	Dec. 26, 1882	816 00	700 00	12		Yes	4,480 00
Bijoutiers en double (Association des)		January, 1882	1,000 00	1,000 00	160	No		1,440 00
Bijoutiers-joailliers (Association des)		July 27, 1882	1,800 00	840 00	26	No		
Chapeliers (Association générale ouvriers)	Working hat-makers	Dec. 12, 1883	400 00	280 00	88		Yes	640 00
Charrons (Association collective des)	Wheelwrights	Oct. 26, 1883	400 00	162 17	23	No		1,626 16
Charpentiers de la Seine (Association des)	Working carpenters	Feb. 18, 1881	606 00	491 16	40	No		24,000 00
Charpentiers de la Villette (Association des)		Nov. 21, 1881	3,200 00	3,200 00	183	No		40,000 00
Cimentiers (Association générale des ouvriers)	Working cement-makers	Aug. 22, 1881	240 00	282 00	17	No		16,280 00
Cimentiers (Société des ouvriers réunis)		Sept. 25, 1884	320 00	320 00	11	No		1,200 00
Cochers (La nouvelle association des)	Coachmen or cab drivers	Mar. 21, 1883	1,760 00	1,080 00	73	No		16,000 00
Cochers (L'Espérance, Association des)		Feb. 9, 1884	3,280 00	2,765 19	41		Yes	16,457 8
Cochers (Association des)		Dec. 9, 1874	24,000 00	18,504 10	102	No		120,000 00
Cochers (L'union des)		Dec. 1, 1873	14,200 00	14,200 00	129		Yes	
Cochers (L'Alliance, Association des)		Feb. 12, 1882	6,080 00	10,000 00	105	No		
Cochers (La Parisienne, Association des)		Oct. 1, 1879	6,880 00	5,600 00	43	No		
Cochers (La Moderne, Association des)		Oct. 1, 1881	8,640 00	7,800 00	54	No		
Cochers (La Montrougienne, Association des)		Nov. 30, 1881	9,600 00	7,726 00	60		Yes	
Cochers (Le Progrès, Association des)		Mar. 21, 1883	1,760 00	880 00	73	No		
Couvreurs, plombiers, zingueurs	Slaters, plumbers, and zinc workers	Aug. 27, 1883	800 00	720 00	27		Yes	6,000 00
Ebénistes (L'Avenir, Association des)	Cabinet-makers	Aug. 24, 1879	1,020 00	740 00	48	No		20,000 00
Ebénisterie Parisienne (L')		Nov. 30, 1881	2,800 00	1,400 00	130			2,800 00
Ebénisterie (Association de l')		June 30, 1884	760 00	240 00	19		Yes	
Ebénistes (Société générale francaise d'ameublement)		April 14, 1884	320 00	180 00	10		Yes	4,400 00
Ebénisterie (Association syndic. des)		July 24, 1884	320 00	320 00	125			7,000 00
Facteurs d'anches	Reed-makers	Dec. 1, 1865	700 00	80 00	7	No		40,000 00
Focteurs de pianos (Association des)	Pianoforte-makers	1849	10,448 00	10,448 00	18	No		240,000 00
Facteurs de pianos (L'Union, Association des)		April 15, 1882	540 00	625 11	6			6,400 00
Facteurs d'instruments de musique	Musical instrument makers	1865	7,760 00	6,520 00	17	No		92,000 00
Ferblantiers, lanternes, compteurs	Tin-workers, lantern, and meter makers	July, 1868	8,480 00	6,000 00	106	No		140,000 00
Ferblantiers-boîtiers (Association des)	Tin-box makers	March, 1875	3,680 00	2,800 00	39			160,000 00
Formiets (Association des)	Model-makers	Nov. 17, 1849	2,320 00	1,545 14	12	No		102,000 00
Horologers (Société anonyme des)	Watch-makers	Aug. 8, 1882	640 00	393 12	20	No		3,240 00
Imprimerie nouvelle (Association de l')	Printers	Nov. 12, 1869	8,000 00	8,000 00	1,348	No		160,000 00
Jardiniers (Association co-opérative des)	Gardeners	Mar. 16, 1881	600 00	312 00	30		Yes	548 00
Joailliers bijoutiers à façon	Jewelers							
Journal Officiel (Association co-opération du)	Newspaper publishers	Feb. 5, 1881	224 00	224 00	28		Yes	88,000 00
Límes (Association des ouvriers en)	Working file-makers	Sept. 27, 1848	8,400 00	6,890 17	21	No		194,640 00

Lithographes de Paris (Association des)	Parisian lithographers	March, 1866	20,000 00	20,000 00	250			120,360 00
Lunetiers (Société des)	Spectacle-makers	Aug. 6, 1849	89,600 00	53,262 10	112	No		1,200,000 00
Maçons et tailleurs de Pierre (L'union des ouvriers)	Working masons and stonecutters	March, 1885	400 00	900 00	15		Yes	
Menuisiers et bâtiments	Different kinds of joiners	Feb. 21, 1884	420 00	245 7	7		Yes	1,235 10
Menuisiers d'art et bâtiments		Mar. 27, 1884	240 00	240 00	12		Yes	2,640 00
Menuisiers en sièges		Nov. 16, 1848	64 00	64 00	16	No		306,911 4
Menuisiers en voitures								
Moniteur des Syndicats ouvriers	Trades Union newspaper	Nov. 4, 1882	1,000 00	600 00	39			1,240 00
Opticien (Association général des ouvriers)	Working opticians	Dec. 25, 1864	4,800 00	2,860 00	5	No		64,000 00
Orfèvrerie (Association ouvrière d')	Working goldsmiths	Sept. 21, 1881	2,000 00	1,060 00	116	No		600 00
Papetiers régleurs (Association des)	Ruled paper makers	May 1, 1883	2,400 00	365 4	6	No		1,600 00
Parqueteurs (Société co-opérative des)	Inlaid floor-makers	Oct. 22, 1881	200 00	192 4	12	No		13,374 6
Parqueteurs (Association d'ouvriers)		Dec. 3, 1883	120 00	67 9	6		Yes	4,000 00
Parqueteurs (Association Parisienne des)		Aug. 7. 1884	120 00	24 00	9			7,000 00
Passementiers (Association des ouvriers)	Working lace-makers	Dec. 16, 1884	600 00	84 00				200 00
Paveurs (Association générale d'ouvriers)	Working pavers	Feb. 11, 1883	6,440 00	660 00		No		15,200 00
Paveurs (Association de)		Feb. 17, 1883	1,440 00	1,460 00		No		20,000 00
Peintres en bâtiment (Travail des)	House painters	Dec. 27, 1882	800 00	536 00			Yes	11,200 00
Peintres en bâtiment (L'union des)		May 7, 1883	816 00	579 16	13		Yes	5,520 00
Peintres de Paris (La Sécurité de)		Feb. 10, 1885	280 00	28 00	7		Yes	
Restaurateurs (Société co-operative des)	Coöperative restaurant							
Sacs de dames et de voyage	Makers of ladies' and travelers' bags		980 00	440 00	10		Yes	10,000 00
Sculpteurs de Paris (L'union des)	Sculptors							
Sculpture (Association co-opérative de la)								
Sellerie Parisienne (Association de la)	Saddlers	Feb. 4, 1883	880 00	520 00	117	No		8,000 00
Serrurieurs en meubles	Furniture locksmiths	Feb. 19, 1850	120 00	120 00	5		Yes	4,560 00
Tailleurs (Association générale des)	Tailors	Oct. 15, 1863	4,000 00	3,820 00	180	No		200,000 00
Tailleurs de limes	File cutters	Dec. 24, 1868	540 00	540 00	6		Yes	16,000 00
Terrassiers de la Seine	Terrace-makers	Jan. 1, 1885	80 00	8 00	6			
Tapissiers (Association d'ouvriers)	Working upholsterers	Feb. 27, 1884	294 00	202 12	96			1,600 00
Typographes (Association la co-operation des)	Typographers	Dec. 26, 1881	400 00	360 00	24			4,185 2
Vanniers (Association co-opération des ouvriers)	Working basket-makers	Mar. 1, 1882	80 00	64 00	18	No		1,080 00
Société co-opérative immobiliére	Society for loans on realty	Dec. 15, 1867	5,600 00	5,600 00	369	No		19,200 00
Société co-opérative (Construction des maisons ouvrières)	Coöperative building society							

The total number of associates exhibited by the foregoing table is four thousand nine hundred and twenty. These, with the auxiliaries employed, of whom the number does not appear, have done work amounting to £3,560,258 6*s*. The total paid up capital shown by the table is £223,315 18*s*.

These societies are usually administered by a council, acting through an executive officer who is termed a delegate administrator, director, or *gérant*. As might be expected some difficulty is experienced in finding capable, active, and devoted managers, and earnest and prudent councilmen. Calmness, moderation, and perseverance, qualities essential to success, are often lacking among associates. But, nevertheless, the condition of the societies is in France considered promising and the outlook is thought to be encouraging.

It will be noticed that in many cases auxiliaries do not share in profits. In such instances the organization would seem to be a form of coöperative partnership composed of workingmen, who share with each other profits in part derived from the labor of auxiliaries who do not share at all. When the profits are thus divided solely on the basis of shares held by the associates, the organization is merely that of a joint stock company, analogous to the Oldham Mills. When the associates also share as workers an additional coöperative step is taken, and, finally, when, as in some of the societies, auxiliary workers are permitted to share in profits, the coöperative features become more complete.

The auxiliaries of the Carpenters' Association of La Villette are locksmiths, sawyers of planks, and joiners. Instead of participating in profits they are paid a larger wage than that allowed by private employers. Provision is also made for an allowance to any auxiliary who is injured while at work, usually amounting to one half the customary wage for the time the disability continues.

The auxiliaries employed by the Association of Working File Makers, although not allowed to share in profits, are admitted as associates, without the payment of any fee, after six months' employment by the society. In other societies, notably the Association of Pianoforte Makers, a similar custom prevails.

Many societies have a fund for the care of superannuated members, for insurance in case of accident or death, etc. Most have certain conditions as prerequisites to membership, designed to secure the moral, physical, and industrial fitness of those who desire to join. Some require candidates to serve a period of probation before admission.

The mode of allotment of profits varies. In some societies a fixed rate of interest is paid to shareholders, and the balance, after providing for the maintenance of reserves, insurance, and similar funds, if any, is divided among associate workers, or among associates and auxiliaries, as the case may be. Several societies, which permit auxiliaries to share, restrict the amount of profit out of which such share must be paid. For instance, in the General Society of French Cabinet-Makers, auxiliaries participate in 25 per cent of the profits, and the Society of Furniture Locksmiths permits auxiliaries to share in profits in the proportion of 10 per cent on the proceeds of their work. Some societies divide all profits on the basis of work performed. The Association of File Cutters, in the division of profits, awards to capital 20 per cent and to labor 80 per cent.

COÖPERATION IN GERMANY.*

German coöperation has three modes of development, viz.: people's banks, consumers' societies, and trade societies. Of these the people's banks—a form of coöperative savings bank—are the most numerous, the trade societies ranking next. In 1883 the number of each class was as follows: people's banks, one thousand nine hundred and ten; trade societies, one thousand and thirty-one; consumers' societies, six hundred and seventy-six.

The trade societies, so called, include two classes—industrial societies and agricultural societies. These may be more minutely classified as follows:

Industrial Societies.	
Raw material supply	145
Magazines	59
Productive	149

Agricultural Societies.	
Agricultural consumers' supply	305
Implement supply and stock raising	171
Productive agriculture	198

Total industrial societies, three hundred and fifty-three; total agricultural societies, six hundred and seventy-four; societies not included under the foregoing heads, four; aggregate, one thousand and thirty-one.

The coöperative movement in Germany began with the raw material supply associations founded by Schulze-Delitzsch, for the purpose of enabling handicraftsmen in different trades to purchase by wholesale the materials required in the prosecution of their industries so as to allow them to compete with extensive manufacturers. The object of these societies was to uphold hand labor against the encroachments of factory industry, by thus obtaining for handworkers through association the advantages possessed by capitalists, and deliver them from middlemen who furnished inferior material at high prices.

> Where the raw material societies have organized themselves according to the advice of Schulze-Delitzsch, and avoided the errors against which he over and over again warned them, they have accomplished this object to the benefit of the German hand-work, and preserved to many German handicraftsmen their independent business. If we consider that, according to the trade statistics of 1882, there were in the shoe-making trade alone 245,118 independent hand-workers, who, in spite of the prophecies uttered more than 20 years since by Ferdinand Lassalle and Karl Marx, still carry on the shoe-making business on their own account and will not consent to be wage-receivers, we cannot close our eyes to the fact that millions of Germans have the most pressing interest in the preservation of handicrafts. * * *
>
> The raw material societies of the hand-workers could have given greater help in this contest if several of them had not ruined themselves by grave mistakes, because, unfortunately, the bad custom of the hand-worker giving credit—sometimes long credit—to his customers, without any compensation, is widely spread in Germany. The workers often demanded of the raw material societies to sell to them on credit at the same price as if they had paid ready money. Many societies have given way to this unjustifiable claim, and sunk under the consequent loss of capital and interest. Hence the number of raw material societies is not increasing.†

The one hundred and forty-five raw material societies included the following trades: Joiners and instrument-makers, twenty-one; spinners and weavers, seventeen; meal and bread producers, fourteen; printers and lithographers, eleven; tailors, ten; brewers, seven; butchers, seven; carpenters and masons, six; cigar-makers, six; clock and watch-makers, distillers, metal workers, and shoe-makers, five each; machinists and sugar-makers, four each; gilders and potters, three each; brush and comb-makers, miners, personal services, and sewing machine makers, two each; bookbinders, glass-makers, plumbers and lacquerers, and starch-makers, one each.

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*Authority: Dr. Schneider, of Potsdam.

† Dr. Schneider, of Potsdam.

The industrial magazines are coöperative commission concerns whose business it is to sell at a common magazine or depot the goods produced by their members. The larger number are engaged in the sale of carpenters' and joiners' products.

The industrial productive societies are mainly confined to hand labor and to smaller industries. A notable exception is that of the largest German manufactory of chronometers, which is conducted on the coöperative plan. Coöperation when applied to factory labor in Germany has not been very successful.

> Productive societies formed for the purpose of selling their wares to the consumers' societies, and supplied with capital by them exist * * * only as exceptions. A society of this kind was the Berlin Bakers' Society, which long since came to grief through bad management. Most of the productive societies have been founded without any reference to the wants of the consumers' societies, by small groups of artisans or laborers who were all to be at once employers and workers. The business of the society was their only source of income. If anything went wrong with their business, all the members came into difficulty. This may in many cases have bound all the members together, and steeled their energies, but it tended also to make them indisposed to the admission of new associates, which naturally came into question only when the business was again going on prosperously. The members who had fought through the time of need alone, wished alone to reap the fruits of the good time. This was not associative, and was vigorously opposed by Schulze-Delitzsch, but it was natural, and explains the circumstance that in many old and successful productive societies the number of members is slowly diminishing. In some, though this is not publicly known, the number of members has shrunk to such an extent that they are no longer societies, but have become trading partnerships.*

The agricultural coöperative societies appear to be quite successful and are increasing.

The agricultural consumers' supply societies afford their members facilities for purchasing in common seeds, manures, etc., and secure to them the advantage of subjecting to chemical analysis goods offered to them for purchase, so as to test the genuineness of the articles. Others, existing among land owners, known as implement societies, provide agricultural machines owned in common and loaned to members. Still others have for their object the improvement of breeds of cattle, and, finally, the productive agricultural societies are engaged in dairying and wine making.

There exists in Germany a coöperative union founded by Schulze-Delitzsch, and, since 1883, a union of the agricultural societies, having for its special object the advancement of this form of coöperation.

Of the six hundred and seventy-six consumers' societies only one hundred and seventy-two, having a total membership of one hundred and ten thousand four hundred and thirty-three, made returns in 1883. These present the following statement:

Number of societies making returns	172
Number of members	110,433
Total sales	£1,634,215 2*s*.
Average sales of each society	£9,501 5*s*.
Members' capital	£157,625 9*s*.
Reserves	£73,883 13*s*.
Loan capital	£150,517 9*s*.
Amount owing for goods	£20,494 9*s*.
Net profits	£123,114 14*s*.
Amount due from members (in 48 societies)	£6,112 5*s*.
Applied to educational purposes	£1,250 9*s*.

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* Dr. Schneider.

The largest consumers' society is at Breslau. It had, in 1883, twenty-two thousand seven hundred and seventy-five members, and during that year its sales amounted to £241,635 2*s*., the net profit being £25,357 18*s*. A large steam bakery is conducted by the society.

Building societies have met with poor success in Germany, and have been unable to compete with private enterprise.

Dr. Schneider has compiled the following statistics respecting the membership of the people's banks and consumers' societies, and concerning which he makes this statement:

> I add a tabular view of the composition of the members in the people's banks and consumers' societies, classified according to their occupations, whence the difference in the character of these two classes of societies, notwithstanding the similarity of their objects, appears. The members of the raw material and productive societies belong, with few exceptions, to the corresponding trades, although, so far back as 1868, the productive societies were urged, in order to increase their power of bearing losses, to draw in non-workers as members.

The table shows the percentages of membership of each class in the people's banks and consumers' societies based upon the returns for 1882 and 1883. Dr. Schneider is of the opinion that had the statistics covered all the societies instead of those making returns only, the result would not have been materially different.

CLASSIFICATION OF MEMBERSHIP IN PEOPLE'S BANKS AND CONSUMERS' SOCIETIES.

CLASSIFICATION OF MEMBERSHIP.	PEOPLE'S BANKS. Percentages by years.		CONSUMERS' SOCIETIES. Percentages by years.	
	1882.	1883.	1882.	1883.
Independent land cultivators, gardeners, foresters, and fishers	25.4	25.5	3.7	3.7
Assistants and laborers of the foregoing	3.0	3.1	3.9	3.87
Manufacturers, and persons engaged in mining and building	3.65	3.6	1.6	1.7
Independent handworkers	31.2	30.9	15.3	15.0
Workers in factories and mines, and assistants of handworkers.	4.7	4.8	40.4	41.2
Independent traders and dealers	9.6	9.6	4.0	4.0
Clerks, and assistants to traders	0.7	0.7	1.6	1.4
Carriers, ship owners, and innkeepers	5.2	5.1	2.5	2.4
Letter carriers, employés in railway, telegraph, and Post Offices, laborers on railways, mariners, and waiters	1.9	1.9	7.7	7.2
Male and female servants	1.6	1.0	1.7	2.8
Physicians, apothecaries, teachers, artists, writers, officials of church, State, or municipal bodies	6.7	6.7	10.5	10.8
Persons of independent income	7.4	7.6	7.1	6.5
Number of societies making returns	819	825	166	160

COÖPERATION IN AUSTRIA.*

In Austria, the statute of November 26, 1852, permitted the formation of coöperative societies with unlimited liability. An important change was effected by the law of July 1, 1873, which required all societies, "the number of whose members is unlimited, which seek to benefit their members in their trade or household economy by carrying on business in common," to register at the Government Registration Office. Such societies may be organized, "either with or without limitation of liability, as they determine, the measure of liability in the first case being fixed by their rules."

Unregistered societies formed under the previous law, must register upon making any change in their rules, and are gradually becoming extinguished. By a subsequent statute, January 1, 1880, societies which confine their dealings to their own members are exempt from the traders' tax. Income tax is levied on their net profits, with exemptions and allowances, when the yearly income is less than 2,300 florins.

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* Authority: Dr. H. Ziller, of the Austrian Coöperative Union.

According to the report of Dr. Ziller, who is at the head of the coöperative societies formed in the Austrian Empire, the total number of such societies within Austrian territory in 1881 was one thousand five hundred and fifteen. Of these, three hundred and seventeen were unregistered and one thousand one hundred and ninety-eight registered. Five hundred and seventy-two registered societies were with limited liability and six hundred and twenty-six unlimited. One thousand one hundred and twenty-nine, or 74.5 per cent of all the societies were people's banks: two hundred and thirty-five, or 15.5 per cent, were distributive societies: and the balance were as follows: raw material supply, six; agricultural material supply, fourteen; stores, three; artisan productive, forty-one; agricultural productive, sixty-one; building, five; trading, ten; assurance, two; various, nine. These statistics include Lower and Upper Austria, Lutzburg, the Tyrol, Vorarlberg, Styria, Carinthia, Krain, the Coast Land, Bohemia, Moravia, Silesia, Galicia, Bukowina, and Dalmatia.

Coöperative distribution does not appear to be very flourishing. It is stated that the number of such societies is scarcely half that formerly existing. The reasons given for the failure of those that have been dissolved are commercial depressions affecting the earnings of those connected with them, heavy taxes assessed on them as traders in certain districts, and bad management of a large number which were formed for political purposes.

Besides the societies which deal in the usual groceries in common demand, a few grind corn, some have bakeries attached, and some sell butcher's meat; but the latter has not generally been found profitable. Most of the societies sell beer and spirits. Drapery and shoes, crockery, hardware, and wooden goods are supplied by some. The credit system exists and the practice of giving credit appears to be increasing. As a consequence the societies which made returns were owing more than 33 per cent of the value of their stock in trade. Less than half the societies made returns for the year 1881, and some of these returns were imperfect. Of those that made returns the average membership was six hundred and thirty. The information as to the application of profits was especially defective. The following general statement is made:

> Many societies, which sell at the lowest practicable prices, make no division of profits, but carry them wholly to reserve. Others, which sell only to their own members, have introduced the practice of distributing profits as dividend on purchases, with very favorable results in their business, which are more favorable than those obtained in the earlier method, adopted from the practice of the people's banks, of dividing the profits in proportion to the paid up capital, which is preserved in the case of the profits from the sales to non-members.

Of the artisans' productive societies many, it is stated, have failed because formed to take control of private enterprises that had not been successful. When formed independently by workers possessing sufficient capital to enable them to avoid debt they have succeeded when there was a fair opening for business. Some have failed on account of internal dissensions. Although forty-one productive societies of the artisan class are included in the statistics we have quoted, only twelve made returns for the year, and the details are too meager to afford much light as to the general condition of all the societies. Taxation, in the form of trading licenses, appears to seriously interfere with the prosperity of these societies, and, for local reasons, to discriminate against them as compared with private concerns.

Most of the agricultural productive societies confine their operations to dairying. Scarcely any details appear as to these or the other societies enumerated, very few having made returns.

COÖPERATION IN DENMARK.*

Coöperation in this country appears to be confined to consumers' distributive societies. About one hundred and fifty such societies are believed to exist. Seventy have been grouped in a wholesale union.

The source of coöperative effort here seems to have been the English societies, the success of which impressed the late Pastor Sonne, who published a work entitled "Workmen's Coöperative Societies in England," thus leading directly to the formation of Danish societies. Since the year 1870 the movement has grown in importance, and appears likely to increase still further under the present organization. A monthly periodical devoted to the interests of coöperators is now issued by the wholesale society.

COÖPERATION IN SPAIN. †

Coöperation has as yet made no progress in Spain. One or two small associations exist, but not in a very flourishing condition. A society established at Bilbao, and also one in Gijon, soon failed on account of bad management.

COÖPERATION IN HUNGARY. ‡

Distributive coöperation in Hungary, although instituted some years ago, has made little progress. Of late, slightly more life has been apparent in the movement, but statistics respecting it are very scanty. The statistical bureau of Hungary has no data upon the subject.

Productive societies are not numerous, the chief examples existing in Buda-Pesth. The chief avenue of coöperative effort is the system of banking analogous to that of Germany.

Dr. Ziller, of the Austrian Coöperative Union, has presented the following statistics for the societies in Hungary, Croatia, and Slavonia, in the year 1883: Total number of societies, three hundred and fifty-seven; people's banks, three hundred and eight; consumers' societies, sixteen; raw material supply, two; depots (for selling), three; agricultural aid societies, two; artisans' productive societies, six; agricultural productive societies, seven; assurance societies, eight; miscellaneous, five.

Five of the consumers' societies show collective sales amounting to 234,468 florins; share capital, 33,231 florins; reserve fund, 33,561 florins; loans, 1,822 florins; indebtedness for goods, 6,222 florins; value of stock at end of year, 45,228 florins; due from members for goods sold on credit, 17,288 florins.

The credit system universally prevails. The artisans' productive societies represent the following trades: Cloth-makers, two; brewers, marble workers, iron workers, and lock-makers, one each.

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*Authority: Mr. J. Andrew, of the Coöperative Wholesale Society, Copenhagen.

† Authority: Mr. Robert R. Evans, English Consul, Bilbao.

‡ Authorities: Dr. Stephen Bernát, of the Ministry of Agriculture, Buda-Pesth. Dr. H. Ziller, of the Austrian Coöperative Union.

The agricultural productive societies represent dairying, vine culture, and the production of silk.

COÖPERATION IN ITALY.*

The coöperative movement in Italy began with the political unification of the country, as part of the general progress of the time. People's banks upon substantially the German model were among the first, and are to-day leading examples of Italian coöperative effort. They have increased from four in 1865 to two hundred and fifty-two in 1883, the capital in the latter year being about £2,120,000. They have been very successful, and of great benefit to certain classes, chiefly the middle class traders and artisans, but have not materially aided laborers, or the masses of the working population. Other forms of coöperative credit and savings institutions are in progress or contemplated, among others the following:

> A certain number of small agriculturists, generally the very smallest proprietors or farmers, unite themselves into a society with unlimited liability. On this guarantee the society contracts loans at the lowest attainable rate of interest, and out of the sum thus collected makes advances to their members who apply for them, at a somewhat higher rate. The bank is to act also as a savings bank. These institutions are specially agricultural, and satisfy the need for small advances, at long periods of repayment, keenly felt by a class of agriculturists numerous in the Italian provinces, that of the small proprietors who cultivate their own land, of the small farmers, and also, in certain cases, of the agricultural laborers, who sometimes cultivate a field on their own account.†

With these banks agricultural clubs are sometimes united.

Distributive coöperation is in Italy well known, but the movement in this direction lacks organization. The mode of administering such societies varies. Some are conducted on the Rochdale plan. Others are workingmen's societies providing various kinds of provisions for members exclusively. A still different class are associations securing special rates for their members upon purchases from private shopkeepers. About eight thousand persons united in societies upon the latter basis in 1880. There is still another class formed by railway employés, for the purpose of obtaining provisions of good quality at low prices. These are joint stock societies analogous to the civil service supply societies of England. The first association of the kind was founded at Turin, in 1873, with fifty-three members and a small capital. In 1883 it had two thousand three hundred and seven members and more than nine hundred associates, its sales amounting to about £40,000 in that year. Similar societies, all of which have made rapid progress, exist at Milan, Florence, Naples, Sampier d'Arena, Genoa, Verona, and elsewhere. In general, they sell at the lowest possible prices, pay no interest on shares, confine their sales to their own members, and carry the meager profit upon sales to a reserve fund.

The general consumers' societies were at first based on the Rochdale plan, but owing to differences in national characteristics this plan was not generally successful in Italy, and at present the greater number do not attempt to pay to their customers dividends on purchases as do the English societies, but rather endeavor to sell at lower than ordinary market prices, carrying profits to a dividend on stock. The chief advantage derived from such societies is considered to be their restraining effect upon private retail shopkeepers, compelling the latter by force of competition to sell their goods at fair prices. The range of goods supplied is narrow, being principally confined to bread, flour, grain, vegetables, macaroni, and vermicelli. In some cases, meat and fish are added.

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* Authority: Dr. Ugo Rabbeno, Reggio Emilia, Italy.

† Rabbeno. Coöperation in Italy. Translated by E. V. Neale. Coöperative Printing Society, Manchester, England.

The number of consumers' societies in 1878 was ascertained by government inquiry to be fifty-eight, and they are supposed to have considerably increased in number since, but no definite statistics exist.

Dr. Rabbeno, while taking a hopeful view of the progress of distributive coöperation, after mentioning certain localities in which from his personal knowledge such progress has been marked, conservatively adds:

> With all this we must not delude ourselves, nor take refuge in equivocal statements. Coöperation for consumption, as it is practiced in Italy, exercises a beneficial influence, especially by contributing to keep down the prices of articles of first necessity. But this influence is very limited. Besides, the greater part of the Italian consumers' societies are not very flourishing. They lead a rather straitened life. On the whole, coöperation for consumption in Italy is not yet a success. We may hope that it will become such.

In commenting upon this, Mr. Neale, Secretary of the English Coöperative Union, remarks:

> The people's banks appear to me to form in Italy indirectly a serious hindrance to the spread of coöperation for consumption. By furnishing, through the credit given by them, a support to the small traders, they make the triumph of coöperation, which is in continual conflict with this class of traders, more difficult.

In the country districts of Lower Lombardy a system of coöperative bakeries exists, founded by Rinaldo Anelli, a priest of the village of Bernate Ticino. The farmers and farm laborers suffered from poor food, owing to insufficient means for individually drying and preserving the grain from mold, especially during wet seasons, although it formed their chief reliance for subsistence. To meet this peculiarly local need Anelli said to the agriculturists:

> We will construct a bakehouse. You shall bring to this bakehouse your grain. Here we intend to get it well dried that it may keep well. We will make a contract with the miller to grind it on fair terms. We will make it into bread on the best system and in the most economical manner; and we will give you as many loaves of bread as will correspond to the corn that you have brought.*

The instant success of the scheme, which has been elsewhere copied, affords a marked instance of the advantages of mutual effort under certain favorable conditions.

Productive coöperation is limited to a few societies, and, although some success is to be noted, is still in the experimental stage. The oldest and most important society is the Artistic Glass Society of Altare, founded in 1856, and for a time subjected to government opposition. Its original capital was only 14,385 lire, about £463, but the members by carrying to capital monthly installments of their wages, increased it rapidly until, in 1883, it amounted to about £16,639. The value of the product in the latter year was about £21,196.

The Coöperative Labor Society at Ismola, manufacturing earthernware and cooking utensils, was founded in 1874 by Guiseppe Bucci, who gave up to his workmen his own establishment, for which they paid him by installments. It has been reasonably successful.

In Bologna there are six productive societies engaged in hemp dressing, shoe-making, building and wood-working, leather-cutting, glove-making, and printing. They are all small, but are said to be exerting a good influence. At Milan there is a coöperative society of marble-workers, and one of laundresses; at Bandeno, one of weavers; at Schio, one engaged in railway and tramway construction; and at Turin, one of working tailors, dressmakers, and seamstresses.

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*Coöperation in Italy.

The customary division of profits is between shareholders and workers. At Altare and Ismola, 3 per cent is first paid to shareholders, and of the remaining profit, 30 per cent is carried to a reserve fund, 25 per cent to a subsidy fund, 30 per cent to shareholders, and 15 per cent to workers, in proportion to the number of days each has worked. Members must become shareholders within four years or leave the society, a requirement that eliminates the thriftless and undeserving.

Another form of productive coöperation in Italy should be noticed, the coöperative associations of day laborers. These arose among the agricultural workers of Romagna, and they had in view the emancipation of field laborers from the power of contractors, whose custom it was to control every extensive operation in road-making, earthwork, etc., farming out the work to sub-contractors, and reducing wages to the lowest point, so as to swell profits to themselves without regard to the rights of the laborers dependent upon them. The work, it will be seen, is very simple, requiring little capital and limited skill, thus rendering it easy of performance upon the coöperative plan. The meager capital required was readily obtained by savings from wages, the par value of shares being placed at a low figure. Almost the only outlay required was for pickaxes, barrows, etc., and in many cases these were already possessed by the workmen. The plan of operation was simple. Large contracts are taken by the society at fixed rates, and sublet in sections to members, who work by the piece. By this plan individual remuneration is in proportion to the work performed. The workers become directly interested in the work, and their efficiency is proportionately increased. The middleman is abolished, and the laborer is brought into immediate relations with the proprietor who controls the undertaking. Under these advantages, men who previously earned from 7½*d.* to 1*s.* 2½*d.* a day have increased their wages to 2*s.* 5*d.*, and in some cases to 3*s.* 2½*d.* or 4*s.* daily. The first association of this sort, formed at Ravenna with three hundred members, grew to a membership of three thousand within a year. Others upon the same plan are working well.

COÖPERATION IN SWEDEN.*

Coöperation in Sweden, as in Norway and Finland, is still awaiting development, but owing principally to the efforts of Lars Oscar Smith, a wealthy manufacturer of Stockholm, its future is hopeful. Mr. Smith became interested in the subject by the study of foreign experiments, and especially by witnessing what had been accomplished in Great Britain. He first formed in Stockholm the Sättskapet Arbetarnes Ring, or Workmen's Ring Society, and inspired by this example, eighty similar societies sprang up in the Swedish provinces. An important object of these societies was emancipation from the "ring" rule carried on by the combined proprietors of brandy shops and public houses.

The original Workmen's Ring Society, after variations of fortune, was incorporated during October, 1884, under the name of the Aktiebolaget Arbetarnes Ring, or Workmen's Ring Society, Limited. In its corporate organization this society consists of two sections, A and B; the first a wholesale and the last a retail department. To aid the society, in whose welfare he was deeply interested, Mr. Smith supplied the capital which the workmen lacked requisite to conduct the wholesale department, viz., 100,000 Swedish crowns, representing twenty thousand shares. The Section B, retail, is provided with capital upon the basis of five crown shares in groups of five hundred shares each, only one share to be held by each member. Mr. Smith's connection is upon the following terms: Six per cent is to be paid him upon his investment; the balance of profits acquired in both sections is to be carried to a reserve fund until the latter becomes 100,000 crowns, whereupon the reserve is to be used in taking up the shares held by Mr. Smith, who is to go out of the concern. By this plan the shareholders of Section B will ultimately acquire the wholesale business of Section A out of the profits arising from their trade.

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* Authority: Mr. A. W. Schulman, of the Aktiebolaget Arbetarnes Ring, Stockholm.

The sections are governed by committees. Whenever a sufficient number of persons will subscribe to take up a group or block of shares in Section B, and will pledge themselves to support a store operated by the capital thus supplied, such a store is to be opened, and becomes a department of the society. The retail section therefore admits of indefinite extension, although, as the organization is recent, few stores have yet been started. In general features the organization is based upon that of the English societies, that is, a wholesale department intended ultimately to be owned and operated by a federation composed of numerous retail associations. Unlike the English stores which began with the retail departments and by natural growth developed their present complete organization, the Swedish societies, by the aid of the capital supplied by Mr. Smith, have at once the advantages of a wholesale department, with the possibility of acquiring its full ownership in the future.

The business of the Swedish Workmen's Ring is at present confined to groceries and the products of butchering, together with a coöperative steam kitchen for workingmen, originally established by Mr. Smith but now operated as a department of the society.

Mr. Smith is also the promoter of a coöperative banking society, the Aktiebolaget Arbetareingens Bank, having a capital of more than 300,000 Swedish crowns, in shares of 25 crowns (£1 8*s*.) each, one fifth held by Mr. Smith, and the balance held by about eight thousand five hundred workingmen.

COÖPERATION IN SWITZERLAND.*

About one hundred and thirty distributive societies are in operation in Switzerland, of which nine only existed prior to 1860. The larger number are in the cantons of Zurich, Bern, Saint Gallen, Neuchâtel, and Glarus, though some are found in every canton except Schwytz, Uri, Unterwald, and Appenzell-Interieur.

The majority of the societies, according to their professions, place chief stress upon securing supplies free from adulteration, and the moral advantages of coöperation, rather than upon low prices. These are mainly conducted by the German speaking population. On the other hand, the minority aim at low prices chiefly, and of these three fourths are French.

The capital invested in the societies is approximately as follows:

Share capital, 109 societies	1,973,779 francs.
Reserve fund, 83 societies	722,528 francs.
Bond investments, 9 societies	430,921 francs.
Total	3,127,228 francs.

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*Authority: The Journal de Genève, March 6, 1884.

Societies not represented in the above returns would, if included, probably enlarge the total to 3,250,000 francs. The total number of shareholding members has been estimated at thirty thousand, the total annual sales at 13,000,000 francs, and the total annual profits at 1,500,000 francs. The moral results attending coöperation in England also appear in Switzerland. No Swiss coöperative union has yet been established.

COÖPERATION IN THE NETHERLANDS.*

Coöperative societies in the Netherlands have a legal sanction in the statute of November 17, 1876, and, although a few societies had been founded previously, the progress of the movement rests upon this statute.

The General Dutch Workmen's Union (*Het Algemeen Nederlandsch Werkliedenverbond*) and the Society for Self Help (*Vereeniging Eigen Hulp*) are corporations founded for the purpose of promoting coöperative societies and extending coöperative principles. The first has its headquarters at Amsterdam, and the latter at The Hague. Both maintain newspaper organs.

The following coöperative societies have been established since 1876:

Coöperative savings and advancing banks	8
Consumers' societies	23
Coöperative bakeries	2
Coöperative butchering establishment	1
Building societies	13
Agricultural societies	3
Society for managing funerals (undertakers)	1
Total	51

Divisions of the Workmen's Union exist in several towns, and have founded small associations administered under domestic rules and not incorporated. The coöperative savings and advancing banks are located at Amsterdam, The Hague, Leeuwarden, Middleburg, Goes, Enschede, and Veendam.

Most of the consumers' societies are upon the limited liability plan. The cash system is generally adhered to. Some sell only to members at as low rates as possible.† Others sell to every one and divide profits among members yearly in proportion to consumption, allowing undrawn dividends to remain on interest.‡

The two coöperative bakeries enumerated are in successful operation at The Hague, and at Koog, aan de Zaan (North Holland), respectively. At The Hague members upon joining pay 1*s.* 8*d.* In April, 1885, the society had one thousand and fifty members. Dividends are paid in bread during the year as demanded, each member's dividend being in proportion to his consumption during the previous year. At Koog, the yearly surplus is divided among widows of deceased members, upon the basis of the consumption of the recipient during the previous year.

The agricultural societies conduct the business of transporting and selling farm produce, for the common account of members, in foreign and native markets; besides which one society has a productive character.

The coöperative associations that belong to the Society for Self Help have a common agency for the purchase of supplies in the *Gezamelyke Inkoop van Eigen Hulp*, at Rotterdam, which, though loosely organized, is really the germ of a wholesale society.

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*Authority: J. Th. Braun, of The Hague.

† Civil service plan.

‡ Somewhat similar to the Rochdale plan.

A division of the Society for Self Help devotes itself to the dissemination of supplies among army and navy officers, and is similar to the army and navy supply societies in England, although at present rather limited in its operations.

COÖPERATION IN AUSTRALIA.*

The leading coöperative society in Australia is the Equitable Coöperative Society, of Melbourne, administered on the Rochdale plan. Business was begun in 1882, and certain errors of management, due to inexperience, having been remedied, the society is now firmly established and progressing rapidly. Early in the present year, 1885, the number of members was 1,990; paid up capital, £46,100; and deposits, £7,000, drawing interest at 5 per cent.

The departments include groceries, hardware, wines and spirits, crockery, boots and shoes, drugs and chemicals, stationery, drapery, millinery, carpets and upholstery, tailoring, and dress-making. The number of employés in the distributive service is about ninety, one third of whom are boys and girls. About fifty-six productive employés are also engaged. A monthly journal, called the "Equitable Coöperator," is published by the society in its interests and circulated free of charge. Goods are delivered free to purchasers in Melbourne and suburbs. An experienced buyer is employed in London, and about one half the stock in trade is imported.

Some other distributive societies exist in Australia, called coöperative, but mostly upon the joint stock plan. Under the influence of the Equitable Society coöperation in that country will no doubt be further developed.

THE ARLINGTON COÖPERATIVE ASSOCIATION, AT LAWRENCE, MASSACHUSETTS.

Distributive coöperation in the United States has been tried upon various plans, notably under the patronage of the Sovereigns of Industry, Patrons of Husbandry, Knights of Labor, and similar organizations. Being in most instances incidental only to the main purpose of such orders, the fate of these distributive stores has usually been determined by the success or failure of the primary objects of the organization.

In Texas a coöperative wholesale society and about one hundred and fifty retail stores are in existence in connection with the Order of Patrons of Husbandry.† Isolated experiments, not successful, have been made in New York City and in Brooklyn. The Arlington Coöperative Association at Lawrence, Massachusetts, however, furnishes an example of successful American distributive coöperation on substantially the Rochdale plan.

The association is limited to employés of the Arlington mills. In this feature of limitation the plan of the English stores is not adhered to, as membership in the latter is not restricted. Officers are elected annually, consisting of a Secretary, Treasurer, and ten Directors, one of whom is chosen President by the Board, and regular quarterly meetings are held. Special meetings may be called by the President with the consent of a majority of the Directors, and must be called upon the written request of ten members. Auditors are chosen annually by the stockholders by ballot. The manager of the store is selected by the Directors, and is at present a thoroughly competent person trained in the principles of distributive coöperation in England.

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* Authority: Mr. William Nuttall, Secretary of the Equitable Coöperative Society, Melbourne.

† J. B. Long, Rusk, Texas.

The administration of the society is similar to that of the English societies which we have described. Three members of the Board of Directors constitute an advisory committee, whose duty it is to consult with the manager as to purchases of stock, and to approve all bills before the same are paid by the Treasurer. The latter officer is placed under bonds. The manager is held responsible for the correct accounting of stock in trade, makes a daily report of sales and accounts to the Treasurer, and takes account of stock quarterly. He gives such bonds as the Directors require for the faithful performance of his duties.

Members may hold from one to two hundred shares. The par value of shares is $5. Members, upon joining, pay an initiation fee of 50 cents, all sums so received being carried to the sinking fund, to which fund is also carried not less than 10 per cent of profits annually. Under the rules the sinking fund is to be allowed to accumulate until it shall amount to 30 per cent in excess of the capital stock. Amounts carried to the sinking fund, and other sums in excess of the business needs of the association, are placed on deposit in the savings bank until sufficient in the aggregate to purchase five shares of Arlington Mills stock, when the deposit, at the discretion of the Directors, may be withdrawn and invested in such stock under such provisions as the Treasurer of the corporation and the State law may require. "On all certificates of stock thus issued there shall be indorsed the provision that interest shall be paid at the rate of 1 per cent less than the average dividend declared by the Arlington corporation for the current year."* This provision as to investments, taken together with the fact that members must be employés of the Arlington corporation, introduces indirectly a productive element.

The cash system is enforced. No intoxicating liquors are sold. Sales are made at the average retail market price. Each stockholder has one vote in business meetings. Shares are withdrawable after thirty days' notice, or if, for any reason, payment is delayed after thirty days upon shares which a member has duly signified his intention to withdraw, such shares may be transferred to any other member who has not already the maximum number of shares to which he is entitled under the rules; but no transfer can be made to non-members, unless by the consent of the Directors, in writing, signed by the President and Secretary, and entered upon the records of the association.

After providing for the sinking fund, interest on capital stock at the rate of 5 per cent annually, and the payment of taxes, profits are divided quarterly in proportion to the purchases of the recipients, non-members sharing at half the rate allowed to members. After $1 has been paid in on stock subscribed for, the subscriber is entitled to a full dividend. Dividends and interest declared on stock may remain on deposit. Interest on money paid in for shares commences on the first of each month. No interest is paid on shares withdrawn before the end of the quarter. When the undrawn dividends and interest placed to the credit of any person amount to the par value of one share, interest is declared on the accumulation in the same manner as provided for money paid in for shares, provided that such accumulation, together with the original shares invested, shall not exceed the par value of two hundred shares.

The association was incorporated July 8, 1884. Business was begun September 15, 1884, and the first fiscal year was closed October 1, 1885. The average capital for the year, $3,320, was turned over more than eleven times, and thus realized a return of nearly 74 per cent in less than thirteen months. The following statistical statement from the Directors' report exhibits the uniform progress of the association:

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* By-laws of the association.

Progress of the Arlington Coöperative Association.

Classification.	Total Sales.	Gross Profits.	Salaries, Expenses, and Interest.	Net Profits.
First quarter, 15 weeks	$10,828 89	$1,743 62	$1,024 93	$718 69
Second quarter, 13 weeks	8,783 92	1,479 52	954 98	524 54
Third quarter, 13 weeks	8,615 01	1,087 15	830 46	256 69
Fourth quarter, 13 weeks	9,967 12	1,809 75	1,036 61	773 14
Totals	$38,194 94	$6,120 04	$3,846 98	$2,273 06

Classification.	Profits Divided.	Carried to Sinking Fund.	Interest on Capital.	Total Return on Capital.
First quarter, 15 weeks	$544 54	$174 15	$51 13	$769 82
Second quarter, 13 weeks	449 44	75 10	40 48	565 02
Third quarter, 13 weeks	348 58	91 89*	40 89	297 58
Fourth quarter, 13 weeks	607 42	165 72	40 74	813 88
Totals	$1,949 98	$323 08	$173 24	$2,446 30

* This amount deducted.

The totals of the foregoing table afford the basis for the following statement: The gross profit amounts to 16.02 per cent on sales; salaries and expenses 10.07 per cent on sales; net profits 5.95 per cent on sales; the profits divided represent an average on checks returned of 6.24 per cent for full dividend and 3.12 per cent for half dividend; the sinking fund represents more than 14 per cent of net profits besides initiation fees; the interest is 5 per cent on capital, and the total return on capital is 73.68 per cent.

At the close of the first year's business the share capital represented six hundred and sixty-four shares; merchandise in stock, including dry goods and fuel, amounted to $2,554 27; fixtures, $767 28: cash in bank, $1,249 26; and the association might well congratulate itself on the results accomplished, and the prosperous future apparently before it.

CHAPTER XII.

WAGES PAID, HOURS OF LABOR, AND CLASSES OF LABOR IN CALIFORNIA.

MANUFACTURERS.

The following statements are the result of a canvass among the leading business firms.

The firm names are left off intentionally, under a promise so to do, in order that the statements could be obtained.

Acids.

Articles manufactured. Acids.
How much have you paid for labor in the last twelve months. $22,000.
How much have you paid for labor to Chinese. $5,000.
What is the greatest number of hands employed at one time during last year. 30.
Number of men. 20.
Time workers. All.
Highest wages paid to men per week. $36.
Lowest wages paid to men per week. $12.
Average wages paid to men per week. $16 50.
Average annual earnings of men. $725.
Number of hours worked per day. 10 to 12.
Number of months run on full time. 12.
What is the average number of Chinese hands employed in the last twelve months. 20.
Highest wages paid to Chinese. $7 80 per week.
Lowest wages paid to Chinese. $6.
Average wages paid to Chinese. $7 50.
How are wages paid. Monthly and yearly.
Have wages been increased or reduced. Neither.
What class of employés do you have the most trouble in getting. White labor suitable for the business.
For what employment do you have the most applicants. Laborers, but won't work at the business.
What is the sanitary condition of the various departments in your establishment. The work is not unhealthy, but disagreeable, and but few white men can be found to do it.

Agricultural Machinery.

Articles manufactured. Agricultural machinery.
How much have you paid for labor in the last twelve months. $40,000.
What is the greatest number of hands employed at one time during the last year. 75.
Number of men. 20.
Number of boys. 2.
Number of apprentices. 2.
Time workers. All.
Highest wages paid to men per day. $3 50.
Lowest wages paid to men per day. $2 50.
Average wages paid to men per day. $3.
Average annual earnings of men. $900.
Number of hours worked per day. 10.
Number of months run on full time. 12.
What is the average number of Chinese hands employed in the last twelve months. None.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling, and number engaged in the strike. One strike; eight molders; on account too many apprentices; firm acceded to demand.
What class of employés do you have the most trouble in getting. No trouble.
For what employment do you have the most applicants. Machinists and laborers.
What is the sanitary condition of the various departments in your establishment. Good.

Architectural Iron-Work, Etc.

Location in county or town. San Francisco.
Articles manufactured. Architectural iron-work, machinery, cast-iron specialties, iron casting, etc.
How much have you paid for labor in the last twelve months. $75,000.
What is the greatest number of hands employed at one time during the last year. 150.
Number of men. 120. How employed. Machinists, molders, pattern-makers, etc.
Number of boys. 30.
Number of apprentices. 10. Upon what condition employed. Serve four years; $5 per week and $10 per week.
Time workers. All.
Highest wages paid to men per day. $4.
Lowest wages paid to men per day. $2 50.
Average wages paid to men per day. $3 25.
Average annual earnings of men. $1,000.
Wages paid to boys per week. $5 to $10.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Increased. How much. 8 per cent.
Number of days lost during the year. Only holiday Federated Trades procession.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling, and number engaged in the strike. Have had no strikes.
What class of employés do you have the most trouble in getting. Men to make soil pipe.
For what employment do you have the most applicants. Unskilled labor.
What is the sanitary condition of the various departments in your establishment. Good.

Artificial Flowers.

Articles manufactured. Artificial flowers.
How much have you paid for labor in the last twelve months. $3,000.
What is the greatest number of hands employed at one time during the last year. 40.
Number of men. 2.
Number of women. 15.
Number of boys. 1.
Number of piece workers. All.
Highest wages paid to men per week. $9.
Lowest wages paid to men per week. $6.
Average wages paid to men per week. $9.
Average annual earnings of men. $450.
Highest wages paid to women per week. $7.
Lowest wages paid to women per week. $3.
Average wages paid to women per week. $5.
Average annual earnings of women. $250.
Wages paid to boys per week. $3.
Number of hours worked per day. 8½.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. Good girls.
For what employment do you have the most applicants. Girls.
What is the sanitary condition of the various departments in your establishment. Good.

Axle Grease.

Articles manufactured. Axle grease.
What is the greatest number of hands employed at one time during the last year. 6.
Number of men. 1.
Number of boys. 5.
Highest wages paid to men per week. $15.
Wages paid to boys per week. $7 to $8.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.

Baskets.

Articles manufactured. Baskets.

How much have you paid for labor in the last twelve months. $1,800.

Number of men. 3.

Highest wages paid to men per day. $2.

Lowest wages paid to men per day. $2.

Average wages paid to men per day. $2.

Average annual earnings of men. $600.

Number of hours worked per day. 10.

Number of months run on full time. 12.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.

What class of employés do you have the most trouble in getting. None.

For what employment do you have the most applicants. Not many.

What is the sanitary condition of the various departments in your establishment. Good.

Billiard Tables.

Articles manufactured. Billiard tables, gymnasium goods.

How much have you paid for labor in the last twelve months. $16,000.

What is the greatest number of hands employed at one time during the last year. 22.

Number of men. 21. How employed. Manufacturing.

Number of boys. 1.

Number of apprentices. 1. Upon what condition employed. No condition.

Number of piece workers. 10. Time workers. 11.

Highest wages paid to men per day. $3 50, billiard table makers; $5 to turners.

Lowest wages paid to men per day. $1 50; slate and marble cutters and apprentices.

Average wages paid to men per day. $2 75; billiard-makers.

Average annual earnings of men. $700.

Number of hours worked per day. 10.

Number of months run on full time. 12.

How are wages paid. Weekly.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.

What class of employés do you have the most trouble in getting. Experienced billiard-makers.

For what employment do you have the most applicants. Cabinet-makers.

What is the sanitary condition of the various departments in your establishment. Good.

Blankets and Woolen Goods.

Articles manufactured. Blankets, and all kinds of woolen goods.

How much have you paid for labor in the last twelve months. $260,000.

How much have you paid for labor to Chinese. $40,000.

What is the greatest number of hands employed at one time during the last year. 750.

Number of men. 350.

Number of women. 150.

Number of boys. 50.

Number of apprentices. None.

Number of piece workers. $\frac{1}{3}$. Time workers. $\frac{2}{3}$.

Highest wages paid to men per week. $41 50.

Lowest wages paid to men per day. $1 50.

Average wages paid to men per day. $2 50.

Average annual earnings of men. $750.

Highest wages paid to women per week. $12 50.

Lowest wages paid to women per week. $6.

Average wages paid to women per week. $9.

Average annual earnings of women. $300.

Wages paid to boys per day. 75 cents to $1.

Number of hours worked per day. 11.

Number of months run on full time. 12.

What is the average number of Chinese hands employed in the last twelve months. 200.

Highest wages paid to Chinese. $1 10.

Lowest wages paid to Chinese. 90 cents.

Average wages paid to Chinese. $1.

Have wages been increased or reduced. Increased. How much. 5 per cent.

Number of days lost during the year. Fourth of July and Christmas.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.

What class of employés do you have the most trouble in getting. None.

For what employment do you have the most applicants. Weavers.

What is the sanitary condition of the various departments in your establishment. Good.

Boot and Shoe Lasts.

Articles manufactured. Boot and shoe lasts.
How much have you paid for labor in the last twelve months. $7,500.
What is the greatest number of hands employed at one time during the last year. 9.
Number of men. 8.
Number of boys. 1.
Number of apprentices. 1.
Time workers. All.
Highest wages paid to men per week. $21.
Lowest wages paid to men per week. $15.
Average wages paid to men per week. $18.
Average annual earnings of men. $900.
Wages paid to boys per week. $10.
Number of hours worked per day. 10.
Number of months run on full time. 12.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
What class of employés do you have the most trouble in getting. Experienced last-makers.
For what employment do you have the most applicants. No.
What is the sanitary condition of the various departments in your establishment. Good.

Paper Boxes.

Articles manufactured. Paper boxes, etc.
How much have you paid for labor in the last twelve months. $10,000.
What is the greatest number of hands employed at one time during the last year. 30.
Number of men. 4. How employed. Box cutting.
Number of women. 22. How employed. Box pasting.
Number of boys. 2.
Number of piece workers. 19. Time workers. 9.
Highest wages paid to men. $2 50 per day; cutters.
Lowest wages paid to men. $2 50 per day; cutters.
Average wages paid to men. $2 50 per day; cutters.
Average annual earnings of men. $750.
Highest wages paid to women per week. $9.
Lowest wages paid to women and girls per week. $3.
Average wages paid to women and girls per week. $5.
Average annual earnings of women and girls. $250.
Wages paid to boys per week. $6.
Number of hours worked per day. 10, men. 9½, women and girls.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
What class of employés do you have the most trouble in getting. Experienced hands.
For what employment do you have the most applicants. Girls.
What is the sanitary condition of the various departments in your establishment. Good.

Packing Boxes.

Articles manufactured. Packing boxes and cases (wood).
How much have you paid for labor in the last twelve months. $1,400.
What is the greatest number of hands employed at one time during the past year. 100.
Number of men. 85.
Number of boys. 15.
Time workers. All.
Highest wages paid to men per week. $21 machine hands, $15 box-makers.
Lowest wages paid to men per week. $10 50, box-makers.
Average wages paid to men per week. $12, box-makers.
Average annual earnings of men. $600.
Wages paid to boys per week. $3 50 to $10.
Number of hours worked per day. 9 in winter, 10 in summer.
Number of months run on full time. 12.
How are wages paid. Bi-weekly.
Number of days lost during the year. Holidays only.
What class of employés do you have the most trouble in getting. No trouble.
For what employment do you have the most applicants. Laboring men.
What is the sanitary condition of the various departments in your establishment. Good.

Brass Goods.

Articles manufactured. Brass goods of all kinds. Iron pumps, valves, etc.
How much have you paid for labor in the last twelve months. $100,000.

What is the greatest number of hands employed at one time during the last year. 160.
Number of men. 130.
Number of women. None.
Number of boys. 30.
Number of apprentices. 30. Upon what condition employed. Are paid wages first year, $3 per week; second, $4; third, $5; fourth, $6; fifth, $7 to age of 21.
Time workers. All.
Highest wages paid to men. $4 per day. Finishers, $3; machinists, $3 25.
Lowest wages paid to men. $1 50 per day. Finishers, $2 50; machinists, $2 25.
Average wages paid to men. $2 50 per day. Brass molders, $3; finishers, $2 75; machinists, $2 75.
Average annual earnings of men. $750.
Number of hours worked per day. 10 summer, 9 winter.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Machinists.
What is the sanitary condition of the various departments in your establishment. Good.

Brick.

Articles manufactured. Common and pressed brick.
How much have you paid for labor in the last twelve months. $30,000.
How much have you paid for labor to Chinese. $5,000.
What is the greatest number of hands employed at one time during the last year. 150.
Number of men. 150. How employed. Brick-making.
Number of piece workers. 100. Time workers. 50.
Highest wages paid to men per week. $25. Brick-makers, $30 per month and board; burners, $25 per month and board.
Lowest wages paid to men per month. $30. Brick-makers, $30 per month and board; burners, $25 per month and board.
Average wages paid to men per month. $35. Brick-makers, $30 per month and board; burners, $25 per month and board.
Average annual earnings of men. $210.
Number of hours worked per day. 9.
Number of months run on full time. 6.
What is the average number of Chinese hands employed in the last twelve months. 30.
Highest wages paid to Chinese. $1 25 per day and board themselves.
Lowest wages paid to Chinese. $1 25 per day and board themselves.
Average wages paid to Chinese. $1 25 per day and board themselves.
How are wages paid. Any time after due; Chinese monthly.
Have wages been increased or reduced. Neither.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Laborers.
What is the sanitary condition of the various departments in your establishment. Good.

Brushes and Dusters.

Articles manufactured. Brushes and feather dusters.
How much have you paid for labor in the last twelve months. $2,500.
What is the greatest number of hands employed at one time during the last year. 4.
Number of men. 4.
Number of piece workers. All.
Highest wages paid to men per week. $21; 30 to 60 cents per thousand holes and draw; brush-makers.
Lowest wages paid to men per week. $10; 15 to 30 cents for boring; brush-makers.
Average wages paid to men per week. $15; brush-makers.
Average annual earnings of men. $750.
Number of hours worked per day. 9.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
What class of employés do you have the most trouble in getting. No trouble.
For what employment do you have the most applicants. Brush-makers.
Remarks.—We formerly employed 12 men, but we cannot now compete with eastern prison-made brushes, made at the penitentiaries of New York, and Ohio, and Massachusetts.

Brushes and Brooms.

Articles manufactured. Brushes and brooms.
How much have you paid for labor in the last twelve months. $6,000.
What is the greatest number of hands employed at one time during the last year. 16.
Number of men. 13.
Number of women. 1.
Number of boys. 2.
Number of piece workers. 11. Time workers. 2.
Highest wages paid to men per day. $3. Brush-makers, $2.
Lowest wages paid to men per day. $1 50. Brush-makers, $1 50.
Average wages paid to men per day. $2 50. Brush-makers, $1 75.
Average annual earnings of men. Brush-makers, $700; broom-makers, $500.
Highest wages paid to women per week. $9.
Lowest wages paid to women per week. $6.
Average wages paid to women per week. $7.
Average annual earnings of women. $350.
Wages paid to boys per week. $5 to $7 50.
Number of hours worked per day. 9½.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Brush-makers.
What is the sanitary condition of the various departments in your establishment. Good.
Remarks—Seventy per cent of brushes sold here are manufactured by prison labor East.

Candy.

Articles manufactured. Candy.
What is the greatest number of hands employed at one time during the last year. 35.
Number of men. 10. How employed. Candy-making.
Number of women and girls. 15. How employed. Making and packing.
Number of boys. 10. Making and packing.
Number of time workers. All.
When working in teams, the number in a team. 3 to a team.
Highest wages paid to men. $3 per day.
Lowest wages paid to men. $3 per day.
Average wages paid to men. $3 per day.
Average annual earnings of men. $1,000.
Highest wages paid to women per week. $8.
Lowest wages paid to women per week. $3 50.
Average wages paid to women per week. $5 50.
Wages paid to boys per week. $3 to $10.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
What class of employés do you have the most trouble in getting. Candy-makers.
For what employment do you have the most applicants. Girls.
What is the sanitary condition of the various departments in your establishment. Good.

Canned Goods.

Articles manufactured. Hermetically sealed goods.
What is the value of goods manufactured at your establishment in the last twelve months. $400,000.
How much have you paid for labor in the last twelve months. $54,000.
How much have you paid for labor to Chinese. None.
What is the greatest number of hands employed at one time during the last year. 450.
Number of men. 100. How employed. General factory hands.
Number of women. 350. How employed. General factory hands.
Number of boys. 25. Number of girls. Classed as women.
Number of apprentices. None.
Number of piece workers. Women, say two thirds. Time workers. Women, one third; men and boys, all.
Highest wages paid to men per week. Foremen, $20; others, $10 to $12.
Lowest wages paid to men per week. $9.
Average wages paid to men per week. $12.
Average annual earnings of men. Average about six months' time.
Highest wages paid to women per week. Forewomen, $7; others, $4 50 to $5.
Lowest wages paid to women per week. $4 50.
Average wages paid to women per week. $5.

Average annual earnings of women. Average about six months' time.
Wages paid to girls per week. Classed as women.
Number of hours worked per day. 10.
Number of months run on full time. 6. Three days a week. 4. Idle. 2.
What is the average number of Chinese hands employed in the last twelve months. None.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.
What class of employés do you have the most trouble in getting. White women.
For what employment do you have the most applicants. Day work for women.
What is the sanitary condition of the various departments in your establishment. Good; no sickness.

Carriages and Wagons.

Articles manufactured. Carriages and wagons.
How much have you paid for labor in the last twelve months. $11,000.
What is the greatest number of hands employed at one time during the last year. 20.
Number of men. 14.
Number of boys. 6.
Number of apprentices. 2. Upon what condition employed. One month nothing; first 6 months $3 per week; advance as they become expert or learn.
Number of piece workers. 3. Time workers. 17.
Highest wages paid to men per day. Blacksmith, $3 50; wagon-maker or wood-worker, $5; carriage painter, $4; carriage trimmer, $3 50.
Lowest wages paid to men per day. Blacksmith, $3; wagon-maker or wood-worker, $2 25; carriage painter, $2; carriage trimmer, $2.
Average wages paid to men per day. Blacksmith, $3; wagon-maker or wood-worker, $3; carriage painter, $3; carriage trimmer, $3.
Average annual earnings of men. $900.
Wages paid to boys per week. $3 to $12.
Number of hours worked per day. 10 hours all.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
What class of employés do you have the most trouble in getting. Blacksmiths.
For what employment do you have the most applicants. Wood-workers.
What is the sanitary condition of the various departments in your establishment. Excellent.

Casks, Tanks, and Kegs.

Articles manufactured. Casks, tanks, and kegs.
How much have you paid for labor in the last twelve months. $40,000.
What is the greatest number of hands employed at one time during the last year. 90.
Number of men. 60.
Number of boys. 30.
Number of piece workers. 45. Time workers. 45.
Highest wages paid to men per week. $21, coopers.
Lowest wages paid to men per week. $15.
Average wages paid to men per week. $18.
Average annual earnings of men. $900.
Wages paid to boys per week. $5 to $10.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Reduced. How much. 15 per cent.
Number of days lost during the year. Holidays.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number of men engaged in the strike. Three years ago, union required me to sign higher wages; I wouldn't. Union came too.
What class of employés do you have the most trouble in getting. Good coopers.
For what employment do you have the most applicants. Laborers and young boys.
What is the sanitary condition of the various departments in your establishment. Good.

Chemicals.

Articles manufactured. Chemical and pharmaceutical preparations.
How much have you paid for labor in the past twelve months. $140,000.
What is the greatest number of hands employed at one time during the past year. 30.
Number of men. 4.
Number of women. 4. How employed. Bottling, labeling, etc.
Number of boys. 19.
Number of piece workers. None. Time workers. All.
Highest wages paid to men per month. Druggists and chemists, $125.
Lowest wages paid to men per month. Druggists and chemists, $60.
Average wages paid to men per month. Druggists and chemists, $80.

Highest wages paid to women per month. $25.
Lowest wages paid to women per month. $18.
Average wages paid to women per month. $25.
Wages paid to boys per month. $12 to $35.
Number of hours worked per day. Druggists and chemists, 8½ hours. All balance, 9.
Number of months run on full time. 12.
How are wages paid. Monthly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. All kinds.
What is the sanitary condition of the various departments in your establishment. Good.

Coffee, Spices, Etc.

Articles manufactured. Chocolate, coffee, spices, etc.
What is the greatest number of hands employed at one time during the last year. 22.
Number of men. 16. How employed. Making chocolate, roasting coffee, etc.
Number of women. 3.
Number of boys. 3.
Number of time workers. All.
Highest wages paid to men per week. $20.
Lowest wages paid to men per week. $14.
Average wages paid to men per week. $16.
Highest wages paid to women per week. $6.
Lowest wages paid to women per week. $4.
Average wages paid to women per week. $6.
Wages paid to boys per week. $7 to $9.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. All departments.
What is the sanitary condition of the various departments in your establishment. Good.

Churns, Etc.

Articles manufactured. Churns, washboards, step-ladders, and woodenware.
How much have you paid for labor to Chinese. Nothing.
What is the greatest number of hands employed at one time during the last year. 5.
Number of men. 5. How employed. By the day.
Time workers. All.
Highest wages paid to men per week. $15.
Lowest wages paid to men per week. $7 50.
Average wages paid to men per week. $10 50.
Number of hours worked per day. 10.
Number of months run on full time. 12.
What is the average number of Chinese hands employed in the last twelve months. None.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Very few.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. Experienced men.

Cigar Boxes.

Articles manufactured. Cigar boxes.
How much have you paid for labor in the last twelve months. $26,000.
How much have you paid for labor to Chinese. No Chinese employed.
What is the greatest number of hands employed at one time during the last year. 60.
Number of men. 20. How employed. Manufacturing cigar boxes.
Number of women and girls. 21. How employed. Finishing and pasting.
Number of boys. 20.
Number of piece workers. 75. Time workers. 35.
Highest wages paid to men. $3 per day.
Lowest wages paid to men. $2 per day.
Average wages paid to men. $2 50 per day.
Average annual earnings of men. $750.
Highest wages paid to women or girls per week. $9.
Lowest wages paid to women or girls per week. $6.

Average wages paid to women or girls per week. $7 50.

Average annual earnings to women. $375.

Wages paid to boys per week. $3 to $10.

Number of hours worked per day. 10.

Number of months run on full time. 12.

How are wages paid. Weekly.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays only.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.

What class of employés do you have the most trouble in getting. Experienced sawyers.

For what employment do you have the most applicants. All departments.

What is the sanitary condition of the various departments in your establishment. Good.

Copper Work.

Articles manufactured. Copper work, stills, etc.

How much have you paid for labor in the last twelve months. $7,200.

What is the greatest number of hands employed at one time during the last year. 16.

Number of men. 16.

Number of time workers. All.

Highest wages paid to men. Coppersmiths, $3 75 per day.

Lowest wages paid to men. Coppersmith helpers, $2 25 per day.

Average wages paid to men. Coppersmiths, $3 25 per day.

Average annual earnings of men. $900.

Number of hours worked per day. 10.

Number of months run on full time. 12.

What is the average number of Chinese employed in the last twelve months. No Chinese.

How are wages paid. Weekly.

Have wages been increased or reduced. Increased. How much. 20 per cent.

Number of days lost during the year. Holidays only.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No strike.

What class of employés do you have the most trouble in getting. Experienced smiths.

What is the sanitary condition of the various departments in your establishment. Good.

Cotton Mill.

Articles manufactured. All kinds of cotton goods, sail cloth, bags, etc.

How much have you paid for labor in the last twelve months. $50,000.

What is the greatest number of hands employed at one time during the last year. 170.

Number of men. 45.

Number of women and girls. 70.

Number of boys. 55.

Number of apprentices. None.

Number of piece workers. 50. Time workers. 120.

Highest wages paid to men per week. $20.

Lowest wages paid to men per week. $9.

Average wages paid to men per week. $12.

Average annual earnings of men. $600.

Highest wages paid to women and girls per week. $9 25.

Lowest wages paid to women and girls per week. $6.

Foreman of pickers, etc., per week, $20. Highest per week, pickers, $12; spinners, $7 50; twisting, balling, and spooling, $8; warping and starching, $2 50. Lowest per week, pickers, $6; spinners, $6; twisting, balling, and spooling, $6; warping and starching, $2 50. Average per week, pickers, $7; spinners, $7; twisting, balling, and spooling, $7 50; warping and starching, $2 50. Loom fixers, $2 to $2 75 per day. Foreman of weavers, etc., per week, $18. Highest per week, weavers, $11; spinning doffers, $4 20; dyers, $18. Lowest per week, weavers, $6; spinning doffers, $3; dyers, $7 50. Average per week, weavers, $7 50; spinning doffers, $3 75; dyers, $12.

Average wages paid to women and girls per week. $7 50.

Average annual earnings of women and girls. $375.

Wages paid to boys per week. $3 60 to $6.

Number of hours worked per day. 10.

Number of months run on full time. 12.

What is the average number of Chinese hands employed in the last twelve months. No Chinese employed.

How are wages paid. Bi-weekly.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays only.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.

What class of employés do you have the most trouble in getting. Experienced hands.

For what employment do you have the most applicants. Unskilled labor.

What is the sanitary condition of the various departments in your establishment. Excellent.

Remarks.—If some apprentice law existed in this State whereby apt boys and girls might be held for a time sufficient to become adepts, it would furnish them with useful, well paid vocations, as well as greatly facilitate manufacturing. Frequently vacancies occur in a skilled department and cannot be filled here. Apprentices have then to be telegraphed for from the East. One hundred and forty hands employed by us were educated in our mill to the business, and thirty experienced hands were imported.

Crackers, Biscuits, Etc.

Articles manufactured. Crackers, biscuits, etc.
What is the greatest number of hands employed at one time during the past year. 150.
Number of men. 40. How employed. Bakers, packer, oiler, engineer.
Number of women. 31. How employed. Packing and frosting.
Number of boys. 79.
Time workers. All.
Highest wages paid to men per week. $24, foreman.
Lowest wages paid to men per day. $1 50, laborers.
Average wages paid to men per day. $2 50, cracker-baker.
Highest wages paid to women per week. $10 50, forewoman.
Lowest wages paid to women per day. 75 cents; $4 50 per week.
Average wages paid to women per week. $7 50.
Number of hours worked per day. 9.
Number of months run on full time. 12.
Have wages been increased or reduced. Increased.
Number of days lost during the year. Only holidays.
Have men employed in your establishment engaged in any strike; if so, please name trade or calling and number engaged in the strike. No.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Boys and girls.
What is the sanitary condition of the various departments in your establishment. Good.

Cream Tartar.

Articles manufactured. Cream tartar.
What is the greatest number of hands employed at one time during the last year. 8.
Number of men. 8.
Time workers. 8.
Highest wages paid to men per week. $12.
Lowest wages paid to men per week. $12.
Average wages paid to men per week. $12.
Average annual earnings of men. $625.
Number of hours worked per day. 9.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only; run sometimes Sundays and pay double wages.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Laboring or unskilled.
What is the sanitary condition of the various departments in your establishment. Good.

Cutlery, Etc.

Articles manufactured. Cutlery, etc.
How much have you paid for labor in the last twelve months. $30,000.
What is the greatest number of hands employed at one time during the last year. 65.
Number of men. 52.
Number of boys. 8.
Number of apprentices. 8.
Time workers. All.
Highest wages paid to men per week. $30. Cutlers, $24; grinders, $30; locksmiths, $15; bell-hangers, $24; ivory turners, $24.
Lowest wages paid to men per week. $13 50. Cutlers, $18; grinders, $18; locksmiths, $12; bell-hangers, $12; ivory turners, $21.
Average wages paid to men per week. $18. Cutlers, $18; grinders, $18; locksmiths, $12; bell-hangers, $18; ivory turners, $21.
Average annual earnings of men. $900.
Wages paid to boys per week. $2 to $8.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Increased. How much. 10 per cent.
Number of days lost during the year. Holidays.

What class of employés do you have the most trouble in getting. Grinders and first class cutlers.

For what employment do you have the most applicants. Locksmiths.

What is the sanitary condition of the various departments in your establishment. Good.

Gunpowder, Etc.

Articles manufactured. Dynamite, and all grades of gunpowder.

How much have you paid for labor in the last twelve months. About $100,000.

How much have you paid for labor to Chinese. About $1,000 per month.

What is the greatest number of hands employed at one time during the last year. 125.

Number of men. 125. How employed. Manufacturing powder and acids.

Number of piece workers. 3.

Highest wages paid to men per week. $25.

Lowest wages paid to men per week. $12.

Number of hours worked per day. 10.

Number of months run on full time. 12.

What is the average number of Chinese hands employed in the last twelve months. 30.

Highest wages paid to Chinese. $1 50.

Lowest wages paid to Chinese. $1.

Have wages been increased or reduced. Neither.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.

What class of employés do you have the most trouble in getting. No trouble.

For what employment do you have the most applicants. Positions of no danger.

What is the sanitary condition of the various departments in your establishment. First class.

Flour and Mill Stuffs.

Articles manufactured. Flour and mill stuffs.

What is the greatest number of hands employed at one time during the last year. 42.

How employed. In flouring mill.

Number of time workers. All—42.

Highest wages paid to men per day. Millers, $5; engineer, $5.

Lowest wages paid to men per day. Laborers and bran-packers, $2 50.

Average wages paid to men per day. Flour-packers and laborers, $3.

Average annual earnings of men. $720.

Number of hours worked per day. Laborers, etc., 10; mill men, 12.

How are wages paid. Weekly.

Have wages been increased or reduced. Neither.

Number of days lost during the year. 125 days shut down.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.

For what employment do you have the most applicants. Laborers.

What is the sanitary condition of the various departments in your establishment. Good.

Frames.

Articles manufactured. Frames of all kinds.

How much have you paid for labor in the last twelve months. $25,000.

What is the greatest number of hands employed at one time during the last year. 35.

Number of men. 33.

Number of boys. 2.

Number of apprentices. 2. Upon what condition employed. Paid wages; $3 per week to $12.

Number of time workers. All.

Highest wages paid to men per week. $27. Gilders, $3; cabinet-makers, $3 50 per day.

Lowest wages paid to men per day. Ornamenters, work in composition, $4.

Average wages paid to men per week. $18.

Average annual earnings of men. $900.

Wages paid to boys per week. $3 to $12.

Number of hours worked per day. 10.

Number of months run on full time. 12.

Have wages been increased or reduced. Neither.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.

What class of employés do you have the most trouble in getting. No trouble.

For what employment do you have the most applicants. Gilders.

What is the sanitary condition of the various departments in your establishment. Good.

Fringes, Cords, Etc.

Articles manufactured. Fringes, buttons, cords, and tassels.

How much have you paid for labor in the last twelve months. $3,200.

What is the greatest number of hands employed at one time during the last year. 25.

Number of men. 4.

Number of women. 10.
Number of boys. 4.
Number of piece workers, 4. Time workers, 14.
Highest wages paid to men per week. $18, fringe-makers.
Lowest wages paid to men per week. $12.
Average wages paid to men per week. $15.
Average annual earnings of men. $600.
Highest wages paid to women per week. $8.
Lowest wages paid to women per week. $3.
Average wages paid to women per week. $6.
Average annual earnings of women. $240.
Wages paid to boys and girls per week. Boys, $3 to $10.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. According to work and holidays.
What class of employés do you have the most trouble in getting. Fringe-makers.
For what employment do you have the most applicants. Inexperienced girls.
What is the sanitary condition of the various departments in your establishment. Good.

Fruit Cans.

Articles manufactured. Fruit cans and all kinds of tin cans.
How much have you paid for labor in the past twelve months. $150,000.
How much have you paid for labor to Chinese. Nothing.
What is the greatest number of hands employed at one time during the past year. 75.
Number of men. 15. How employed. Making cans.
Number of women and girls. 20. How employed. At machines principally.
Number of boys. 30. How employed. At machines principally.
Number of time workers. All.
Highest wages paid to men per week. $15.
Lowest wages paid to men per week. $6.
Average wages paid to men per week. $9.
Average annual earnings of men. $300.
Highest wages paid to women per week. $7.
Lowest wages paid to women per week. $3.
Average wages paid to women per week. $5.
Average annual earnings of women. $180.
Wages paid to boys and girls per week. $3 to $5.
Number of hours worked per day. 10.
Number of months run on full time. 9.
What is the average number of Chinese hands employed in the last twelve months. None.
How are wages paid. Weekly.
Have wages been increased or reduced. Increased. How much. 10 per cent.
Number of days lost during the year. Holidays only.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Unskilled.
What is the sanitary condition of the various departments in your establishment. Good.

Cabinet Furniture.

Articles manufactured. Fine furniture, cabinet furniture, mantels, etc.
How much have you paid for labor in the last twelve months. $75,000.
What is the greatest number of hands employed at one time during the last year. 120 to 150.
Number of men. 107.
Number of women. 6.
Number of boys. 7.
Number of apprentices. 6. Upon what condition employed. Paid wages; $3 to $10 per week; no conditions.
Number of piece workers. 60. Time workers. 60.
Highest wages paid to men per day. Carvers, $4 50; cabinet-makers, $3; turners, $3 50; finishers, $3; upholsterers, $3 75; mattress-makers, $3.
Lowest wages paid to men per day. Carvers, $4; cabinet-makers, $2 50; turners, $3; finishers, $2; upholsterers, $2 25.
Average wages paid to men per day. Carvers, $4 50; cabinet-makers, $2 50; turners, $3 50; finishers, $2 50; upholsterers, $3; mattress-makers, $2 50.
Average annual earnings of men. $300.
Highest wages paid to women per week. Caning chairs, $12.
Lowest wages paid to women per week. Caning chairs, $6.
Average wages paid to women per week. Caning chairs, $8.
Average annual earnings of women. 6 months work in a year.

Wages paid to boys and girls per week. Boys, $3 to $10.
Number of hours worked per day. 10 in summer, 9 in winter.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
Have men employed in your establishment engaged in any strikes: if so, please name trade or calling and number engaged in the strike. No strike lately.
What class of employés do you have the most trouble in getting. No trouble.
For what employment do you have the most applicants. Cabinet-makers and finishers.
What is the sanitary condition of the various departments in your establishment. Good.

Furs and Robes.

Articles manufactured. Fur robes, fur trimmings, etc.
How much have you paid for labor in the last twelve months. $2,400.
What is the greatest number of hands employed at one time during the past year. 15.
Number of men. 3. How employed. Furriers.
Number of women. 11. How employed. Sewing.
Number of boys. 1.
Time workers. All.
Highest wages paid to men per week. $15, furriers.
Lowest wages paid to men per week. $10, furriers.
Average wages paid to men per week. $12.
Average annual earnings of men. $500.
Highest wages paid to women per week. $7.
Lowest wages paid to women per week. $3.
Average wages paid to women per week. $5.
Average annual earnings of women. $250.
Wages paid to boys per week. $3 50.
Number of hours worked per day. 10.
Number of months run on full time. 12.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
What class of employés do you have the most trouble in getting. Experienced furriers.
For what employment do you have the most applicants. Girls.
What is the sanitary condition of the various departments in your establishment. Good.

Galvanized Iron Work.

Articles manufactured. Galvanized iron work, cornices, etc.
How much have you paid for labor in the last twelve months. $3,600.
What is the greatest number of hands employed at one time during the last year. 40.
Number of men. 36.
Number of boys. 6.
Number of apprentices. 6. Upon what condition employed. No conditions, $4 to $12 per week.
Number of time workers. All.
Highest wages paid to men per week. Galvanized iron workers, cutters, $27.
Lowest wages paid to men per week. Galvanized iron workers, $18.
Average wages of men per week. $21.
Average annual earnings of men. $900.
Wages paid to boys per week. $4 to $12.
Number of hours worked per day. 9.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Increased. How much. 15 per cent.
Number of days lost during the year. Holidays.
Have men employed in your establishment engaged in any strikes: if so, please name trade or calling and number engaged in the strike. No.
What class of employés do you have the most trouble in getting. Experienced hands.
For what employment do you have the most applicants. Inexperienced.

Stained Glass.

Articles manufactured. Art-stained glass, bent glass, and ornamental glass cutting.
How much have you paid for labor in the last twelve months. $20,000.
What is the greatest number of hands employed at one time during the last year. 35.
Number of men. 24. How employed. Painting, staining, bending, and cutting glass.
Number of women. 2 (artists). How employed. Painting on glass.
Number of boys. 9.
Number of apprentices. 9. Upon what condition employed. Wages are paid them from $6 to $15 per week.
Time workers. All.
Highest wages paid to men per day. $5 to $10. Stainers, $5; artists, $10.
Lowest wages paid to men per day. $3, glass-cutters, grinders, embossers.

Average wages paid to men per day. $3 50.
Average annual earnings of men. $1,000.
Wages paid to boys per week. $6 to $15 per week.
Number of hours worked per day. Artists, 8; stainers, 9; cutters, embossers, etc., 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Only holidays.
What class of employés do you have the most trouble in getting. Lead glaziers.
For what employment do you have the most applicants. Art department.
What is the sanitary condition of the various departments in your establishment. Good.

Glass Bottles.

Articles manufactured. Glass bottles and demijohns.
How much have you paid for labor in the last twelve months. $75,000.
What is the greatest number of hands employed at any one time during the last year. 125.
Number of men. 62.
Number of boys. 63.
Number of apprentices. 3. Upon what condition employed. No conditions.
Number of piece workers. 50 Time workers. 75.
Highest wages paid to men per week. $40. Blowers, $40; teasers, $100 per month.
Lowest wages paid to men per week. $10 50. Blowers, $25; teasers, $2 50 per day.
Average wages paid to men per week. $25. Blowers, $29; teasers, $2 50 per day. Demijohn coverers. $7 to $12 per week.
Average annual earnings of men. Works run steady 10 months in the year.
Wages paid to boys per day. Boys average $1 25.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. First class blowers.
For what employment do you have the most applicants. Laborers and boys.
What is the sanitary condition of the various departments in your establishment. Good.

Gloves.

Articles manufactured. Gloves.
How much have you paid for labor in the last twelve months. $40,000.
How much have you paid for labor to Chinese. No Chinese employed.
What is the greatest number of hands employed at one time during the last year. 50.
Number of men. 15. How employed. Cutters and makers.
Number of women. 35. How employed. Glove-makers.
Number of piece workers. 42. Time workers. 8.
Highest wages paid to men per week. $18, cutters—piece work. $16 50, time cutters.
Lowest wages paid to men per week. $12, layers out.
Average wages paid to men per week. $18, cutters—piecework. $16 50, time cutters.
Average annual earnings of men. $900.
Highest wages paid to women per week. $12, glove-makers.
Lowest wages paid to women per week. $6.
Average wages paid to women per week. $7 50.
Average annual earnings of women. $375.
Number of hours worked per day. 9½.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Increased. How much. 12½ per cent.
Number of days lost during the year. Holidays—one week, Christmas and New Year.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Women.
What is the sanitary condition of the various departments in your establishment. Good.

Gold Leaf.

Articles manufactured. Gold leaf.
How much have you paid for labor in the last twelve months. $2,500.
What is the greatest number of hands employed at one time during the last year. 5.
Number of men. 5. How employed. Gold-beating.
Number of piece workers. 2. Number of time workers. 3.
Highest wages paid to men per week. $14 piece, $12 time.
Lowest wages paid to men per week. $9.
Average wages paid to men per week. $11.
Average annual earnings of men. $500.
Number of hours worked per day. 9½; hours previous to August 1, 1886, 10 hours.

Number of months run on full time. 12.

How are wages paid. Weekly.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays only.

What class of employés do you have the most trouble in getting. Good gold-beaters; no others here in State.

For what employment do you have the most applicants. None.

What is the sanitary condition of the various departments in your establishment. Good.

If you have any information, or suggestion to make, which would be of advantage to the State, or to your business, please do so.

Gold-beating.—Priming—preparing skin with gypsum. 1. Beating cutch one half hour; cutch consists of one hundred and seventy-five layers. 2. Beating from cutch is quartered, put in shodar and beaten two hours; shodar consists of seven hundred layers. Then the leaf is quartered again, into twenty-five hundred sheets, and put into four shodars, and each shodar is beaten twenty-four hours. A gold-beater is paid $5 for every beating, and each beating takes twenty-seven hours, or three days. There is only one establishment in San Francisco, owing to eastern competition and poorly paid wages, as will be seen above. The climate of California being more even than the East, it better facilitates gold-beating, owing to the fact that the skins are required to contain a certain degree of moisture and dryness.

Harness.

Articles manufactured. Harness, saddles, collars, whips, lashes, etc.

How much have you paid for labor in the last twelve months. $78,000.

How much have you paid for labor to Chinese. About $10,400.

What is the greatest number of hands employed at one time during the last year. 180.

Number of men. 140. How employed. Manufacturing, various kinds.

Number of boys. 20. Number of girls. 20.

Number of apprentices. 20. Upon what condition employed. No special conditions.

Number of piece workers. 50. Time workers. 130.

Highest wages paid to men per week. $27.

Lowest wages paid to men per week. $12.

Wages paid to boys and girls per week. Boys, $3 to $7; girls, $4 to $10.

Number of hours worked per day. 10.

Number of months run on full time. 12.

What is the average number of Chinese hands employed in the last twelve months. 25.

Highest wages paid to Chinese. $10.

Lowest wages paid to Chinese. $6.

Average wages paid to Chinese. About $7.

How are wages paid. Weekly.

Have wages been increased or reduced. Neither.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No strike.

What class of employés do you have the most trouble in getting. Saddle-makers.

For what employment do you have the most applicants. Harness-makers.

What is the sanitary condition of the various departments in your establishment. First class.

Hats and Caps.

Articles manufactured. Hats and caps.

How much have you paid for labor in the last twelve months. $4,000.

What is the greatest number of hands employed at one time during the last year. 16.

Number of men. 4.

Number of women. 12.

Number of piece workers, 6; time workers, 6.

Highest wages paid to men per week. $18.

Lowest wages paid to men per week. $10.

Average wages paid to men per week. $10.

Average annual earnings of men. $500.

Highest wages paid to women per week. $9.

Lowest wages paid to women per week. $4 50.

Average wages paid to women per week. $7 50.

Average annual earnings of women. $350.

Number of hours worked per day. 9.

How are wages paid. Weekly.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays and 1 week.

What class of employés do you have the most trouble in getting. None.

Hosiery and Underwear.

Articles manufactured. Hosiery and underwear.

How much have you paid for labor in the last twelve months. $50,158. Day labor, $25,042; piece labor, $25,116.

How much have you paid for labor to Chinese. Nothing.

What is the greatest number of hands employed at one time during the last year. 150 in mill.
Number of men. 15.
Number of women. 120.
Number of boys. 15. Number of girls. Included amongst women.
Number of apprentices. None.
Number of piece workers. 90. Time workers. 60.
Highest wages paid to men per week. $35 75.
Lowest wages paid to men per week. $18.
Average wages paid to men per week. $26.
Highest wages paid to women per week. $15.
Lowest wages paid to women per week. $3.
Average wages paid to women per week. $6.
Average annual earnings of women. $300.
Wages paid to boys and girls per week. Boys, $3 to $6 50; girls, same as women.
Number of hours worked per day. 10.
Number of months run on full time. 12.
What is the average number of Chinese hands employed in the last twelve months. None.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Girls.
What is the sanitary condition of the various departments in your establishment. Good.

Inks, Mucilage, Etc.

Articles manufactured. Inks, mucilage, perfumery, etc.
How much have you paid for labor in the last twelve months. $5,000.
What is the greatest number of hands employed at one time during the last year. 17.
Number of men. 17.
Number of boys. 4.
Time workers. All.
Highest wages paid to men per week. $15.
Lowest wages paid to men per week. $6.
Average wages paid to men per week. $11.
Wages paid to boys per week. $3 to $6.
Number of hours worked per day. 9.
Number of months run on full time. 12.
Have wages been increased or reduced. Increased. How much. 5 per cent.
Number of days lost during the year. Holidays.
For what employment do you have the most applicants. Plenty; all kinds.
What is the sanitary condition of the various departments in your establishment. Good.

Jewelry.

Articles manufactured. All kinds of jewelry.
How much have you paid for labor in the last twelve months. $26,000.
What is the greatest number of hands employed at one time during the last year. 40.
Number of men. 30.
Number of boys. 5.
Number of apprentices. 5. Upon what condition employed. Paid wages; apprenticeship may terminate at will of either party.
Number of time workers. All.
Highest wages paid to men per week. $30 to engravers; $27 to jewelers.
Lowest wages paid to men per week. $12 to jewelers.
Average wages paid to men per week. $21.
Average annual earnings of men. $860.
Wages paid to boys per week. $2 to $5.
Number of hours worked per day. 8 in winter; 10 in summer.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.
What class of employés do you have the most trouble in getting. Diamond setters.

Jewelry and Fancy Boxes.

Articles manufactured. Jewelry boxes and fancy boxes.
How much have you paid for labor in the last twelve months. $15,000.
What is the greatest number of hands employed at one time during the last year. 20.

Number of men. 12.
Number of women. 4.
Number of boys. 4.
Number of apprentices; upon what condition employed. No conditions; apprenticeship may terminate at will.
Number of time workers. All.
Highest wages paid to men per week. $21.
Lowest wages paid to men per week. $10.
Average wages paid to men per week. $15.
Average annual earnings of men. $750.
Highest wages paid to women per week. $6.
Lowest wages paid to women per week. $4.
Average wages paid to women per week. $5.
Average annual earnings of women. $375.
Wages paid to boys and girls per week. Boys, $3 to $5.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.
What class of employés do you have the most trouble in getting. Experienced hands.
What is the sanitary condition of the various departments in your establishment. Good.

Jute Goods and Awnings.

Articles manufactured. Bags, tents, awnings, and printed flour bags.
What is the greatest number of hands employed at one time during the last year. 50.
Number of men. 10.
Number of boys. 4. Number of girls. 20.
Number of piece workers. All but 5 time workers.
Highest wages paid to men per week. $18.
Lowest wages paid to men per week. $9.
Average wages paid to men per week. $12.
Highest wages paid girls or women per week. $7.
Lowest wages paid girls or women per week. $3.
Wages paid to boys per week. $3.
Number of hours worked per day. 10.
Number of months run on full time. 12.
Have wages been increased or reduced. Reduced.
Number of days lost during the year. Holidays only.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. No trouble.
For what employment do you have the most applicants. Any kind of work.
What is the sanitary condition of the various departments in your establishment. Good.

Jute Goods.

Articles manufactured. Bags, burlaps, ore bags, twine, and horse blankets.
How much have you paid for labor in the last twelve months. $100,000.
How much have you paid for labor to Chinese. $3,000.
Number of men. 25.
Number of women. 60.
Number of boys. 50.
Number of apprentices. None.
Number of piece workers. 240. Number of time workers. 110.
Highest wages paid to men per week. $22 50.
Lowest wages paid to men per week. $6.
Average wages paid to men per week. $12.
Average annual earnings of men. $600.
Highest wages paid to women per week $11.
Lowest wages paid to women per week. $6.
Average wages paid to women per week. $7 50.
Average annual earnings of women. $375.
Wages paid to boys and girls per week. Boys, $3 to $6; girls, $3 to $6.
Number of hours worked per day. 10.
Number of months run on full time. 12.
What is the average number of Chinese hands employed in the last twelve months. 150.
Highest wages paid to Chinese. $7 50.
Lowest wages paid to Chinese. $4 50.
Average wages paid to Chinese. $6.
How are wages paid. Monthly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays and clean up.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. Experienced spinners and weavers.
For what employment do you have the most applicants. Laborers.
What is the sanitary condition of the various departments in your establishment. Good.

Ladies' and Children's Underwear.

Articles manufactured. Ladies' and children's underwear.
How much have you paid for labor in the last twelve months. $10,000.
What is the greatest number of hands employed at one time during the last year. 30.
Number of men. 1. How employed. Cutter.
Number of women. 29. How employed. Machine operatives.
Number of piece workers. 24. Time workers. 6.
Highest wages paid to men per week. $24.
Highest wages paid to women per week. $8 50.
Lowest wages paid to women per week. $2 50.
Average wages paid to women per week. $6.
Average annual earnings of women. $250.
Number of hours worked per day. 9.
Number of months run on full time. 12.
What is the average number of Chinese hands employed in the last twelve months. None.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
What class of employés do you have the most trouble in getting. Experienced hands.
For what employment do you have the most applicants. Unskilled.
What is the sanitary condition of the various departments in your establishment. Good.

Ladies' Hats and Straw Hats.

Articles manufactured. Ladies' hats and straw hats.
How much have you paid for labor in the last twelve months. $1,500.
What is the greatest number of hands employed at one time during the last year. 9.
Number of men. 3.
Number of women. 6.
Number of time workers. All.
Highest wages paid to men per week. $18, straw-workers.
Lowest wages paid to men per week. $12, straw-workers.
Average wages paid to men per week. $15, straw-workers.
Average annual earnings of men. $540.
Highest wages paid to women per week. $9, sewers.
Lowest wages paid to women per week. $3, sewers.
Average wages paid to women per week. $6, sewers.
Average annual earnings of women. $200.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. None.
What class of employés do you have the most trouble in getting. Sewers.
For what employment do you have the most applicants. None.
What is the sanitary condition of the various departments in your establishment. Good.

Lager Beer.

Article manufactured. Lager beer.
What is the greatest number of hands employed at one time during the last year. 100.
Number of men. 100.
Highest wages paid to men per month. Maltmen, $90; cellarmen, $90; washers, $60.
Lowest wages paid to men per month. Maltmen, $90; cellarmen, $90; washers, $50.
Average wages paid to men per month. Maltmen, $90; cellarmen, $90; washers, $50.
Number of hours worked per day. 12.
Number of months run on full time. 12.
How are wages paid. Monthly.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. No trouble.
For what employment do you have the most applicants. Some brewers.
What is the sanitary condition of the various departments in your establishment. Good.

Lead and Lead Pipe.

Articles manufactured. Lead, sheet lead, lead pipe, and shot.
How much have you paid for labor in the last twelve months. $100,000.

How much have you paid for labor to Chinese. No Chinese employed.
What is the greatest number of hands employed at one time during the last year. 200.
Number of men. 200.
Number of time workers. All.
Highest wages paid to men per week. $30; $18, shot-makers, pipe-makers, etc.
Lowest wages paid to men per week. $12.
Average wages paid to men per week. $12, laborers.
Annual average earnings of men. $500.
Number of hours worked per day. 9½.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. No trouble.
For what employment do you have the most applicants. Laboring men.
What is the sanitary condition of the various departments in your establishment. Good.

Leather Belting.

Articles manufactured. Leather belting and lacing.
How much have you paid for labor in the last twelve months. $6,300.
What is the greatest number of hands employed at one time during the last year. 13.
Number of men. 10. How employed. Making belting.
Number of boys. 3.
Number of apprentices. None.
Highest wages paid to men per week. $20, belting makers.
Lowest wages paid to men per week. $12, curriers.
Average wages paid to men per week. $15, curriers.
Average annual earnings of men. $750.
Wages paid to boys per week. $4.
Number of hours worked per day. 10.
Number of months run on full time. 12.
What is the average number of Chinese hands employed in the last twelve months. None.
How are wages paid. Weekly.
Have wages been increased or reduced. Increased. How much. Five per cent.
Number of days lost during the year. Only holidays.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. Experienced beltmakers.
For what employment do you have the most applicants. Curriers.
What is the sanitary condition of the various departments in your establishment. Good.

Lime and Cement.

Articles manufactured. Lime and cement.
How much have you paid for labor in the last twelve months. $16,000.
What is the greatest number of hands employed at one time during the last year. 30.
Number of men. 30.
Number of time workers. All.
Highest wages paid to men per month. $60, lime burners and quarrymen.
Lowest wages paid to men per month. $45.
Average wages paid to men per month. $55.
Average annual earnings of men. $550.
Number of hours worked per day. 11.
Number of months run on full time. 10.
How are wages paid. Monthly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. All kinds.

Machinery, Agricultural Implements, Etc.

Articles manufactured. Machinery, agricultural implements, files, tacks, and small nails.
How much have you paid for labor in the last twelve months. $100,436 90.
How much have you paid for labor to Chinese. Nothing.
What is the greatest number of hands employed at one time during the last year. 300.
Number of men. 195. How employed. Manufacturing, etc.
Number of women. 5. How employed. Packing tacks and nails.

Number of boys. 50. Number of girls. Included in women.

Number of piece workers. 125. Time workers. 125.

Highest wages paid to men per day. $5.

Lowest wages paid to men per day. $1.

Average wages paid to men per day. $2 75.

Average annual earnings of men. $825.

Highest wages paid to women per month. $45.

Lowest wages paid to women per month. $9.

Average wages paid to women per month. $27.

Average annual earnings of women. $325.

Wages paid to boys and girls per week. Boys, $3 to $4 50. Girls, included in women.

Number of hours worked per day. 10.

Number of months run on full time. 12.

How are wages paid. Monthly.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays only.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No strikes.

What class of employés do you have the most trouble in getting. None.

For what employment do you have the most applicants. Laborers.

What is the sanitary condition of the various departments in your establishment. Good.

Machinery and Ships.

Articles manufactured. All kinds of machinery, iron and steel ships.

What is the greatest number of hands employed at one time during the last year. 600.

Number of men. 550. How employed. Iron working.

Conditions upon which Apprentices are Employed.—Boys will be received either as ordinary apprentices, to serve four years in one department, or as engineer apprentices, to serve six years—two years on machines, one year in the pattern shop, one year erecting, and two years in the drafting room. Ordinary apprentices will be received in the following departments: As machinists, including erecting; as pattern-makers; as blacksmiths; as molders, and as boiler and plate workers. No boy will be received under sixteen years or over eighteen years in the machine, pattern-maker, blacksmith, or molder departments; nor under fifteen or over seventeen years of age in the boiler and plate works, including ship work. Boys in all departments will be taken on thirty days' trial, in order to satisfy themselves that they have made a proper choice, after which they will be required to register themselves as regular apprentices, by their parents or guardians in their behalf, and by themselves in their own behalf, all of which signatures will be considered as evidence that all the conditions herein named are understood and accepted by all parties interested. For machinist and pattern-maker apprentices the parent or guardian will be required to deposit $50 with the company, as a guarantee of the good behavior of the boy. The company will also deposit $50 to the credit of said boy, said $100 to be paid to the boy on completion of his apprenticeship. For molders, blacksmiths, and plate workers, the company will make the deposit of $50 to the credit of the boy, to be paid to him on completion of his apprenticeship. Ordinary apprentice wages shall be: First year, $4 per week; second year, $5 per week; third year, $6 per week; fourth year, $8 per week. Three hundred full days must be worked to complete any one year. Engineer apprentices will be received between the ages of fifteen and seventeen years, for a term of six years, as already set forth. The parent or guardian will be required to deposit $100 as a guarantee of good faith. The company will also deposit $100 to the credit of said boy. Said $200 to be paid to the boy on completion of his apprenticeship. Engineer apprentices' wages shall be: First year, $4 per week; second year, $5 per week; third year, $6 per week: fourth year, $7 per week; fifth year, $8 per week; sixth year, $9 per week. Three hundred full days must be worked to complete any one year.

Time workers. All.

Highest wages paid to men per day. $3 50.

Lowest wages paid to men per day. $1 75.

Average wages paid to men per day. $3.

Average annual earnings of men. $900.

Wages paid to boys per week. $4 to $9.

Number of hours worked per day. 10.

Number of months run on full time. 12.

What is the average number of Chinese hands employed in the last twelve months. No Chinese.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays only.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. Molders, boiler-makers, pattern-makers, and machinists. 200 went out, 175 returned.

What class of employés do you have the most trouble in getting. None.

For what employment do you have the most applicants. Machinists.

What is the sanitary condition of the various departments in your establishment. Splendid.

Matches.

Articles manufactured. Matches.
How much have you paid for labor in the last twelve months. $18,000.
How much have you paid for labor to Chinese. $9,000.
What is the greatest number of hands employed at one time during the last year. 60.
Number of men. 10.
Number of boys. 10.
Number of piece workers. All.
Highest wages paid to men per week. $25.
Lowest wages paid to men per week. $9.
Average wages paid to men per week. $12.
Average annual earnings of men. $600.
Wages paid to boys per week. $3 to $6.
Number of hours worked per day. 10.
Number of months run on full time. 12.
What is the average number of Chinese hands employed in the last twelve months. 40.
Highest wages paid to Chinese. $6.
Lowest wages paid to Chinese. $6.
Average wages paid to Chinese. $6.
Number of days lost during the year. Holidays and breakdown.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. We have but few applicants.
What is the sanitary condition of the various departments in your establishment. As good as can be, but the vocation is unhealthy.

Mathematical Instruments.

Articles manufactured. Mathematical instruments.
What is the greatest number of hands employed at one time during the last year. 7.
Number of men. 5. How employed. Making mathematical instruments, turning brass, etc.
Number of time workers. All.
Highest wages paid to men per day. $5, except foreman.
Lowest wages paid to men per day. $2 50.
Average wages paid to men per day. $3 50.
Average annual earnings of men. $1,000.
Number of hours worked per day. 9.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Instrument makers.
What is the sanitary condition of the various departments in your establishment. Good.

Metal Tools, etc.

Articles manufactured. All kinds of metal-working tools and pumps, engines, etc.
How much have you paid for labor in the last twelve months. $23,000.
What is the greatest number of hands employed at one time during the last year. 55.
Number of men. 49.
Number of boys. 6.
Number of apprentices. 6. Upon what condition employed. Paid wages.
Time workers. All.
Highest wages paid to men per day. $3 50 to tool-makers and finishers.
Lowest wages paid to men per day. $3 to machinists.
Average wages paid to men per day. $3 50 to tool-makers.
Average annual earnings of men. $1,000.
Wages paid to boys per week. $4 50 to $12.
Number of hours worked per day. 10.
Number months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
What class of employés do you have the most trouble in getting. No trouble.
For what employment do you have the most applicants. Machinists.
What is the sanitary condition of the various departments in your establishment. Good.

Mill Work.

Articles manufactured. General mill work, cars, and elevators.
How much have you paid for labor in the last twelve months. $12,000.
What is the greatest number of hands employed at one time during the last year. 26.
Number of men. 16.
Number of boys. 2.

Number of apprentices. 2. Upon what condition employed. They are paid wages, ranging from $4 50 to $12 per week. No conditions.

Number of time workers. All.

Highest wages paid to men per day. $4.

Lowest wages paid to men per day. $2.

Average wages paid to men per day. $3 33⅓.

Average annual earnings of men. $1,000.

Number of hours worked per day. 10.

Number of months run on full time. 12.

How are wages paid. Weekly.

Have wages been increased or reduced. Increased. How much. 5 per cent.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.

What class of employés do you have the most trouble in getting. None.

For what employment do you have the most applicants. Carpenters.

What is the sanitary condition of the various departments in your establishment. Good.

Mirrors.

Articles manufactured. Mirrors; polishing and silvering.

How much have you paid for labor in the last twelve months. $1,650.

What is the greatest number of hands employed at one time during the last year. 2.

Number of men. 2.

Highest wages paid to men per week. Silverer, $20; polisher, $12.

Average annual earnings of men. These men are employed the year round.

Number of hours worked per day. 10.

Number of months run on full time. 12.

How are wages paid. Weekly.

Have wages been increased or reduced. Reduced. How much. 15 per cent.

Number of days lost during the year. Holidays only.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.

What is the sanitary condition of the various departments in your establishment. Good.

Nails.

Articles manufactursd. Nails, cut and wire nails.

How much have you paid for labor in the last twelve months. $144,000.

What is the greatest number of hands employed at one time during the last year. 250.

Number of men. 210.

Number of boys. 40.

Number of piece workers. 125. Time workers. 125.

Highest wages paid to men per day. Boss roller and heater, $15; nailers, $9; rolling mill men, $4.

Lowest wages paid to men per day. Laborers, $1 50; nailers, $3 50; rolling mill men, $2 50.

Average wages paid to men per day. Nailers, $7; rolling mill men, $3.

Average annual earnings of men. $1,200.

Wages paid to boys per day. 40 cents to $1.

Number of hours worked per day. 10.

Number of months run on full time. 12.

How are wages paid. Weekly.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays and repairs.

Have men employed in your establishment engaged in any strikes. If so, please name trade and number engaged in the strike. 26 nailers, January, 1886, on account of change of scale of wages. Nailers acceded. July and August, 1886, 8 nailers, on account of discharged men. Last strike, company replaced all strikers by new men.

What class of employés do you have the most trouble in getting. Nailers.

For what employment do you have the most applicants. Laborers.

What is the sanitary condition of the various departments in your establishment. Good.

Oils.

Articles manufactured. Linseed, cocoanut, castor, and vegetable oils.

How much have you paid for labor in the past twelve months. $25,000.

How much have you paid for labor to Chinese. Nothing.

What is the greatest number of hands employed at one time during the past year. 40.

Number of men. 40.

Number of time workers. All.

Highest wages paid to men per day. Engineer, $3 50; oil boilers and refiners, $3 25.

Lowest wages paid to men per day. Pressmen and laborers. $2 25.

Average annual earnings of men. $675.

Number of hours worked per day. 9½ and 10.

Number of months run on full time. 12.

How are wages paid. Weekly.

Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays and clean-up.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
For what employment do you have the most applicants. Laboring men.
What is the sanitary condition of the various departments in your establishment. Good.

Oils and White Lead.

Articles manufactured. Oil, white lead, colors, and mirrors.
How much have you paid for labor in the last twelve months. $36,000.
How much have you paid for labor to Chinese. Nothing.
What is the greatest number of hands employed at one time during the last year. 150.
Number of men. 140.
Number of women. 3.
Number of boys. 7.
Number of apprentices. None.
Number of time workers. All.
Highest wages paid to men per week. $24. Mirror silverers, $75 per month; white lead, per day, $2 50.
Lowest wages paid to men per week. $9. Mirror silverers, $50 per month; white lead, per day, $1 50.
Average wages paid to men per week. $13 50. Mirror silverers, $62 50 per month; white lead, per day, $2 25.
Average annual earnings of men. Men enumerated here will find work with us all the year.
Highest wages paid to men per month. Oil refiners and bleachers, $75.
Lowest wages paid to men per month. Oil refiners and bleachers, $75.
Average wages paid to men per month. Oil refiners and bleachers, $75.
Wages paid to boys per month. $20 to $30.
Number of hours worked per day. 10.
Number of months run on full time. 12.
What is the average number of Chinese hands employed in the last twelve months. None.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. No trouble in getting any.
For what employment do you have the most applicants. Unskilled labor.
What is the sanitary condition of the various departments in your establishment. Good.

Paper.

Articles manufactured. Book and manilla papers.
How much have you paid for labor in the last twelve months. $15,000.
How much have you paid for labor to Chinese. $4,750.
What is the greatest number of hands employed at one time during the last year. 44.
Number of men. 40. How employed. Making paper, etc.
Number of boys. 4.
Time workers. All.
Highest wages paid to men per month. $100; wood choppers, $65 per month, or $1 25 per cord.
Lowest wages paid to men per month. $30; wood choppers, $30.
Average wages paid to men per month. $50; wood choppers, $25.
Average annual earnings of men. $550.
Wages paid to boys per month. $30.
Number of hours worked per day. 12.
Number of months run on full time. 11.
What is the average number of Chinese hands employed in the last twelve months. 18.
Highest wages paid to Chinese. $30 per month.
Lowest wages paid to Chinese. $20.
Average wages paid to Chinese. $25.
How are wages paid. Monthly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Fourth of July, Christmas, and one month repairs.
Have men employed in your establishment engaged in any strike; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. To do dirty work.
For what employment do you have the most applicants. Unskilled.
What is the sanitary condition of the various departments in your establishment. Good.

Patterns, Etc.

Business. Pattern-making and millwright work.
What is the greatest number of hands employed at one time during the past year. 8 to 11.
Number of men. 5.
Number of boys. 2; wages, $3 to $7 per week for 5 years to 21 years of age.
Highest wages paid to men per day. $4.
Lowest wages paid to men per day. $3 50.
Average wages paid to men per day. $3 50.
Wages paid to boys per week. $3 to $7.
Number of hours worked per day. 9.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.

Pianos and Organs.

Articles manufactured. Pianos and organs.
How much capital have you invested in your business. About $230,000.
How much have you paid for labor in the last twelve months. $31,200.
How much have you paid for labor to Chinese. None.
What is the greatest number of hands employed at one time during the last year. 160.
How employed. Piano and organ making.
Highest wages paid to men per week. $24.
Lowest wages paid to men per week. $12.
Wages paid to boys per week. $6.
Number of hours worked per day. 9.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Increased. How much. 5 per cent.
Number of days lost during the year. Holidays.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. Good piano-makers.
For what employment do you have the most applicants. Cabinet-makers.
What is the sanitary condition of the various departments in your establishment. Good.
Remarks.—Books destroyed by fire; based on memory. Starting up again.

Plaster of Paris.

Articles manufactured. Plaster of Paris.
How much have you paid for labor in the last twelve months. $3,000.
What is the greatest number of hands employed at one time during the last year. 6.
Number of men. 6.
Number of time workers. All.
Highest wages paid to men per day. $2, laborers.
Lowest wages paid to men per day. $2.
Average wages paid to men per day. $2.
Average annual earnings of men. $480.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
For what employment do you have the most applicants. Laborers.
About one fourth manufactured here is mined in California.

Rattan Chairs.

Articles manufactured. Rattan chairs and baskets.
How much have you paid for labor in the last twelve months. $7,500.
What is the greatest number of hands employed at one time during the last year. 18.
Number of men. 7.
Number of women. 1.
Number of boys. 5.
Number of apprentices. 5. Upon what condition employed. Apprenticeship may terminate at option of either; apprenticeship, two years.
Number of piece workers. 6. Time workers. 7.
Highest wages paid to men per day. $3 50; basket-makers, $2 50.
Lowest wages paid to men per day. $3; basket-makers, $2.
Average wages paid to men per day. $3; basket-makers, $2.
Average annual earnings of men. $900.
Highest wages paid to women per week. $9.
Lowest wages paid to women per week. $3.
Average wages paid to women per week. $6.
Wages paid to boys and girls per week. Boys, $3 50 to $8; girls, ——.

Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. Experienced rattan chair-makers.
For what employment do you have the most applicants. Boys.
What is the sanitary condition of the various departments in your establishment. Good.

Rope and Cordage.

Articles manufactured. Rope and cordage of all kinds.
How much have you paid for labor in the last twelve months. $50,000.
What is the greatest number of hands employed at one time during the last year. 160.
Number of men. 100. How employed. Making rope.
Number of boys. 50.
Time workers. All.
Highest wages paid to men per hour. 37½ cents, rope-makers.
Lowest wages paid to men per hour. 17½ cents, rope-makers.
Average wages paid to men per hour. 17½ cents, rope-makers.
Wages paid to boys per hour. 12½ cents.
Number of hours worked per day. 10.
Number of months run on full time. 11.
What is the average number of Chinese hands employed in the last twelve months. 60.
Highest wages paid to Chinese. 8 cents per hour.
Lowest wages paid to Chinese. 8 cents per hour.
Average wages paid to Chinese. 8 cents per hour.
How are wages paid. Monthly.
Have wages been increased or reduced. Reduced. How much. 10 per cent.
Number of days lost during the year. Holidays, and four weeks annually, cleaning up.
Have men employed in your establishment engaged in any strike; if so, please name trade or calling, and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Laborers.
What is the sanitary condition of the various departments in your establishment. Good.

Salt.

Articles manufactured. Salt (table and rock).
What is the greatest number of hands employed at one time during the last year. 75.
Number of men (including Chinese). 75. How employed. Salt-making and refining.
Highest wages paid to men per week. $50, foreman.
Highest wages paid to men per week. $3 50 and board, salt-makers and refiners.
Lowest wages paid to men per day. $1 10, laborers.
Average wages paid to men per day. $1 50.
Number of hours worked per day. 10.
Number of months run on full time. 6.
Highest wages paid to Chinese. $1 50 per day, and board themselves.
Lowest wages paid to Chinese. $1 per day, and board themselves.
Average wages paid to Chinese. $1 per day, and board themselves.
How are wages paid. Monthly.
Have wages been increased or reduced. Neither.
Have men employed in your establishment engaged in any strike; if so, please name trade or calling, and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. None at all.
For what employment do you have the most applicants. Situations for good wages and no work.
What is the sanitary condition of the various departments in your establishment. Fine.

Sash, Doors, and Blinds.

Articles manufactured. Sash, doors, and blinds.
How much have you paid for labor in the last twelve months. $110,000.
What is the greatest number of hands employed at one time during the last year. 150.
Number of men. 140.
Number of boys. 10.
Time workers. All.
Highest wages paid to men per day. $6, foremen; $4, mill hands.
Lowest wages paid to men per day. $2; laborers.
Average wages paid to men per day. $3; sash, door, and blind makers, machine hands.
Average annual earnings of men. $750.
Wages paid to boys per week. $3 to $9.
Number of hours worked per day. 9.

Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Increased. How much. 25 per cent.
Number of days lost during the year. Holidays.
For what employment do you have the most applicants. Laborers and mechanics.
What is the sanitary condition of the various departments in your establishment. Good.

Saws, Knives, and Tools.

Articles manufactured. Saws, knives, and tools.
How much have you paid for labor in the last twelve months. $22,000.
What is the greatest number of hands employed at one time during the last year. 30.
Number of men. 24. How employed. As mechanics and laborers.
Number of boys. 6.
Number of apprentices. 6. Upon what condition employed. Are paid wages; no binding conditions.
Number of time workers. All.
Highest wages paid to men per day, $6; saw-makers, $6.
Lowest wages paid to men per day, $2; saw-makers, $3.
Average wages paid to men per day, $3; saw-makers, $4; saw-grinders, $4.
Average annual earnings of men. $1,200.
Wages paid to boys per week. $3 50 to $10 50.
Number of hours worked per day. 10.
Number of months run on full time. 12.
What is the average number of Chinese hands employed in the last twelve months. None.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Only holidays.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Laboring men.
What is the sanitary condition of the various departments in your establishment. Good.

Sewer Pipe.

Articles manufactured. Sewer pipe and terra cotta ware.
How much have you paid for labor in the last twelve months. $16,000.
How much have you paid for labor to Chinese. $3,987.
What is the greatest number of hands employed at one time during the last year. 20.
Number of men. 20.
Time workers. All.
Highest wages paid to men per week. $15.
Lowest wages paid to men per week. $10.
Average wages paid to men per week. $10 50.
Average annual earnings of men. $525.
Number of hours worked per day. 10.
Number of months run on full time. 12.
Highest wages paid to Chinese. $9 per week.
Lowest wages paid to Chinese. $6 per week.
Average wages paid to Chinese. $7 25 per week.
Have wages been increased or reduced. Increased. How much. 10 per cent.
Number of days lost during the year. Holidays.
For what employment do you have the most applicants. Expert potters.
What is the sanitary condition of the various departments in your establishment. Good.

Sheet Iron.

Articles manufactured. Sheet iron, galvanized and japanned goods.
What is the greatest number of hands employed at one time during the last year. 25.
Number of men. 15. How employed. Sheet iron workers.
Number of boys. 2.
Number of apprentices. 2. Upon what condition employed. No conditions.
Number of piece workers. 10. Time workers. 5.
Highest wages paid to men per week. $27. Galvanizers, per day, $3; japanners, per day, $3 50.
Lowest wages paid to men per week. $15. Galvanizers, per day, $2; japanners, per day, $2.
Average wages paid to men per week. $18.
Wages paid to boys per week. $6.
Number of hours worked per day. 9.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.

What class of employés do you have the most trouble in getting. None.

Showcases.

Articles manufactured. Showcases.
How much have you paid for labor in the last twelve months. $6,400.
What is the greatest number of hands employed at one time during the last year. 8.
Number of men. 5.
Number of time workers. All.
Highest wages paid to men per day. $4. Showcase maker.
Lowest wages paid to men per day. $3. Showcase maker.
Average wages paid to men per day. $3 50. Showcase maker.
Average annual earnings of men. $1,000.
Wages paid to boys per week. $3 to $10.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Increased. How much. 10 per cent.
Number of days lost during the year. Holidays only.
What class of employés do you have the most trouble in getting. No trouble.
For what employment do you have the most applicants. Inferior cabinet-makers.
What is the sanitary condition of the various departments in your establishment. Good.

Silk and Cassimere Hats.

Articles manufactured. Silk and cassimere hats.
How much have you paid for labor in the last twelve months. $7,000.
What is the greatest number of hands employed at one time during the last year. 12.
Number of men. 5. How employed. Hatters.
Number of women. 7. How employed. Trimmers.
Number of piece workers. 7. Time workers, 5.
Highest wages paid to men per week. $52.
Lowest wages paid to men per week. $25.
Average wages paid to men per week. $30.
Average annual earnings of men. $1,200.
Highest wages paid to women per week. $18.
Lowest wages paid to women per week. $6.
Average wages paid to women per week. $10.
Average annual earnings of women. $700.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
What class of employés do you have the most trouble in getting. No trouble.
For what employment do you have the most applicants. Trimmers.
What is the sanitary condition of the various departments in your establishment. Good.

Soaps.

Articles manufactured. Soap, glycerine, and candles.
How much have you paid for labor in the last twelve months. $20,000.
What is the greatest number of hands employed at one time during the last year. 45.
Number of men. 15.
Number of women. 5.
Number of boys. 5.
Number of piece workers. 5. Time workers. 30.
Highest wages paid to men per week. $18. Glycerine, soap-makers, and candle-makers.
Lowest wages paid to men per week. $12. Glycerine, soap-makers, and candle-makers.
Average wages paid to men per week. $15. Glycerine, soap-makers, and candle-makers.
Average annual earnings of men. $750.
Highest wages paid to women per week. $9.
Lowest wages paid to women per week. $7 50.
Average wages paid to women per week. $8.
Average annual earnings of women. $300.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.

What is the sanitary condition of the various departments in your establishment. Good.

Sole and Harness Leather.

Articles manufactured. Sole and harness leather, skirtings and buff.
How much have you paid for labor in the last twelve months. $60,000.
What is the greatest number of hands employed at one time during the last year. 110.
Number of men. 108.
Number of boys. 2.
Number of apprentices. 2. Upon what condition employed. No conditions.
Highest wages paid to men per week. $18, tanners and curriers.
Lowest wages paid to men per week. $12, tanners and curriers.
Average wages paid to men per week. $15, tanners and curriers.
Average annual earnings of men. $750.
Wages paid to boys per week. $7 50.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Increased. How much. 5 per cent.
Number of days lost during the year. Holidays only.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Not many applicants.
What is the sanitary condition of the various departments in your establishment. Fine.

Silverware.

Articles manufactured. Solid silverware.
How much capital have you invested in your business. $50,000.
How much have you paid for labor in the last twelve months. $13,000.
What is the greatest number of hands employed at one time during the last year. 16.
Number of men. 16.
Number of apprentices. 3. Upon what condition employed. We advance the pay of boys as fast as they learn, and are free to go at any time.
Highest wages paid to men per week. $24.
Lowest wages paid to men per week. $15.
Average wages paid to men per week. $19.
Average annual earnings of men. $800 to $900.
Wages paid to boys per week. $3 to $9.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. None.
What is the sanitary condition of the various departments in your establishment. Good.

Spirits and Alcohol.

Articles manufactured. Spirits and alcohol.
How much have you paid for labor in the last twelve months. $10,000.
What is the greatest number of hands employed at one time during the last year. 20.
Number of men. 20. How employed. Coopers and distillers.
Number of piece workers. 1, cooper. Time workers, 19.
Highest wages paid to men per month. Foreman, $150; coopers, $75; miller, $60; laborers, $60.
Lowest wages paid to men per month. $40.
Average wages paid to men per month. $50.
Number of hours worked per day. 12.
Number of months run on full time. 12.
How are wages paid. Monthly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. No time lost.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.
What class of employés do you have most trouble in getting. No trouble.
For what employment do you have the most applicants. Not many.
What is the sanitary condition of the various departments in your establishment. Good.

Spool Silk.

Articles manufactured. Spool silk.
How much have you paid for labor in the last twelve months. $9,400.
What is the greatest number of hands employed at one time during the last year. 51.
Number of men. 2.
Number of women. 41.
Number of boys. 8.

Time workers. All.
Highest wages paid to men per month. $125.
Average wages paid to men per month. $100.
Average annual earnings of men. $1,200.
Highest wages paid to women per week. $9.
Lowest wages paid to women per week. $3 60.
Average wages paid to women per week. $6.
Average annual earnings of women. $300.
Wages paid to boys per week. $3 to $6.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Monthly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
For what employment do you have the most applicants. Girls.
What is the sanitary condition of the various departments in your establishment. Good.

Spun Brass.

Articles manufactured. Spun brass and copper articles, lamps, lamp-burners, etc.
How much have you paid for labor in the last twelve months. $1,275.
What is the greatest number of hands employed at one time during the last year. 4.
Number of men. 2.
Time workers. 2.
Highest wages paid to men per day. $3.
Lowest wages paid to men per day. $2.
Average wages paid to men per day. $2 25.
Average annual earnings of men. $675.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Not many.

Springs and Spring Bed Makers.

Articles manufactured. Springs and spring beds.
How much have you paid for labor in the last twelve months. $1,200.
How much have you paid for labor to Chinese. No Chinese employed.
What is the greatest number of hands employed at one time during the last year. 6.
Number of men. 6. How employed. Making springs.
Number of time workers. All.
Highest wages paid to men per day. $1 50.
Lowest wages paid to men per day. $1.
Average wages paid to men per day. $1.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Only holidays.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Laborers.
What is the sanitary condition of the various departments in your establishment. Good.

Suspenders.

Articles manufactured. Suspenders.
How much have you paid for labor in the last twelve months. $2,000.
What is the greatest number of hands employed at one time during the year. 10.
Number of women. 5.
Number of boys. 5.
Number of piece workers. 5. Time workers. 5.
Highest wages paid to women per week. $9.
Lowest wages paid to women per week. $6.
Average wages paid to women per week. $7 50.
Average annual earnings of women. $450.
Wages paid to boys per week. $6 75 to $10.
Number of hours worked per day. 9.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Girls.
What is the sanitary condition of the various departments in your establishment. Good.

Thrashers.

Articles manufactured. Thrashers.

How much have you paid for labor in the last twelve months. $4,847 11.

Number of men. 11. How employed. Constructing thrashers.

Time workers. All.

Highest wages paid to men per day. $3 75.

Lowest wages paid to men per day. $2.

Average wages paid to men per day. $3.

Average annual earnings of men. $700.

Number of hours worked per day. 9½.

Number of months run on full time. 8.

How are wages paid. Weekly.

Have wages been increased or reduced. Neither.

Time lost during the year. Holidays, and four months in the winter.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling, and number engaged in the strike. None.

What class of employés do you have the most trouble in getting. None.

For what employment do you have the most applicants. Laborers and engineers.

What is the sanitary condition of the various departments in your establishment. Good.

Tin Cans.

Articles manufactured. Tin cans and tinware.

What are the value of tin cans manufactured at your establishment in the last twelve months. September 1, 1885, to August 31, 1886, $99,500.

How much have you paid for labor in the last twelve months in can department. $25,000.

How much have you paid for labor to Chinese. Nothing.

What is the greatest number of hands employed at one time during the last year in can department. 75.

Number of men. 35.

Number of women. 6.

Number of boys. 34.

Number of apprentices. None.

Number of piece workers, 30. Time workers, 45.

Highest wages paid to men per week. $21.

Lowest wages paid to men per week. $9.

Average wages paid to men per week. $13.

Highest wages paid to women per week. $8.

Lowest wages paid to women per week. $5.

Average wages paid to women per week. $6.

Number of hours worked per day. 10.

Number of months run on full time. 12.

What is the average number of Chinese hands employed in the last twelve months. None.

How are wages paid. Weekly.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Legal holidays only.

Have men employed in your establishment engaged in any strikes. If so, please name trade or calling and number engaged in the strike. No.

What class of employés do you have the most trouble in getting. None.

For what employment do you have the most applicants. No record.

What is the sanitary condition of the various departments in your establishment. Good.

Tin, Copper, and Sheet-Iron.

Articles manufactured. Tin, copper, sheet-iron, and zinc ware, and articles.

How much capital have you invested in your business. In manufacturing, about $75,000.

What is the value of goods manufactured at your establishment in the last twelve months. $130,000.

How much have you paid for labor in the last twelve months. $38,000.

How much have you paid for labor to Chinese. Nothing.

What is the greatest number of hands employed at one time during the last year. 64.

Number of men. 32. How employed. Metal workers.

Number of boys. 32.

Number of apprentices. 32. Upon what condition employed. Wages according to ability.

Number of piece workers. 3. Time workers. 61.

Highest wages paid to men per week. $30.

Lowest wages paid to men per week. $12.

Average wages paid to men per week. $20.

Average annual wages. $1,000.

Wages paid to boys. $3 50 to $10 per week.

Number of hours worked per day. 10.

Number of months run on full time. 12.

What is the average number of Chinese hands employed in the last twelve months. None.

Have wages been increased or reduced. Neither.

Number of days lost during the year. None only holidays.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in strike. No strikes or other trouble.

What class of employés do you have the most trouble in getting. No trouble in any class.

For what employment do you have the most applicants. Unable to answer.

What is the sanitary condition of the various departments in your establishment. Good.

Trunks and Valises.

Articles manufactured. Trunks and valises.

How much have you paid for labor in the last twelve months. $45,000.

Number of men. 30.

Number of women. 7.

Number of boys. 10.

Number of piece workers. 10. Time workers. 36.

Highest wages paid to men per week. $21, bag and satchel-makers.

Lowest wages paid to men per week. $14.

Average wages paid to men per week. $16, trunk-makers.

Average annual earnings of men. $900.

Highest wages paid to women per week. $8.

Lowest wages paid to women per week. $7 50.

Average wages paid to women per week. $8.

Average annual earnings of women. $350.

Wages paid to boys per week. $5 to $9.

Number of hours worked per day. 9.

Number of months run on full time. 12.

How are wages paid. Weekly.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays only.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.

What class of employés do you have the most trouble in getting. Skilled satchel-makers.

Type and Wood Cuts.

Articles manufactured. Type, wood cuts, and printers' supplies.

What is the greatest number of hands employed at one time during the last year. 75.

Number of men. 37.

Number of women. 30.

Number of boys. 8.

Number of apprentices. 4. Upon what condition employed. Apprenticeship may expire at the volition of either apprentice or employer.

Number of time workers. All.

Highest wages paid to men per week. Type-casters, $21; stereotypers, $20; wood engravers, $18; compositors, $15.

Lowest wages paid to men per week. Type-casters, $12; stereotypers, $12; wood engravers, $12; compositors, $10.

Average wages paid to men per week. Type-casters, $15; stereotypers, $15; wood engravers, $15; compositors, $12.

Average annual earnings of men. $750.

Highest wages paid to women per week. $9, type-setters.

Lowest wages paid to women per week. $5.

Average wages paid to women per week. $7 50.

Average annual earnings of women. $375.

Wages paid to boys per week: $3 to $9.

Number of hours worked per day. Wood engravers, 8; balance, 10.

Number of months run on full time. 12.

How are wages paid. Weekly.

Have wages been increased or reduced. Increased. How much. 10 per cent.

Number of days lost during the year. Only holidays.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.

What class of employés do you have the most trouble in getting. Matrix fixers and good type-casters.

For what employment do you have the most applicants. Type-setters and compositors.

What is the sanitary condition of the various departments in your establishment. Good.

Type Founders.

Business. Type founders, electrotypers, and stereotypers.

What is the greatest number of hands employed at one time during the last year. 15.

Number of men. 7. How employed. Type founders and electrotypers.

Number of women. 3. How employed. Rubbing and setting type.

Number of boys. 3.

Number of apprentices. 2. Upon what conditions employed. No conditions; are paid wages, $3 to $7 per week.

Number of piece workers. 2 boys. Time workers. Balance.
Highest wages paid to men per week. $30; foreman type foundry.
Lowest wages paid to men per week. $10; electrotype molders.
Average wages paid to men per week. $21; electrotypers and stereotypers.
Average annual earnings of men. $1,000.
Highest wages paid to women per week. $9.
Lowest wages paid to women per week. $9.
Average wages paid to women per week. $9.
Average annual earnings of women. $400.
Wages paid to boys per week. $3 to $7.
Number of hours worked per day. 10.
Number of months run on full time. 12.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
What class of employés do you find most trouble in getting. None.
For what employment do you have the most applicants. Electrotypers.
What is the sanitary condition of the various departments of your establishment. Good.

Umbrellas.

Articles manufactured. Umbrellas.
How much have you paid for labor in the last twelve months. $11,000.
What is the greatest number of hands employed at one time during the last year. 26.
Number of men. 6.
Number of women. 18.
Number of boys. 2.
Time workers. 11.
Highest wages paid to men per day. $3 50.
Lowest wages paid to men per day. $3 50.
Average wages paid to men per day. $3 50.
Highest wages paid to women per week. $18.
Lowest wages paid to women per week. $6.
Average wages paid to women per week. $11.
Wages paid to boys per week. $6 to $12.
Number of hours worked per day. 10.
Number of months run on full time. 12.
What is the average number of Chinese hands employed in the last twelve months. None.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. Experienced umbrella-makers.
For what employment do you have the most applicants. But a few applicants.
What is the sanitary condition of the various departments in your establishment. Good.

Upholstery Goods and Materials.

Articles manufactured. Bed and furniture springs and upholstering materials.
How much have you paid for labor in the last twelve months. $33,000.
What is the greatest number of hands employed at one time during the last year. 70.
Number of men. 50.
Number of women. 5. How employed. Sewing ticks.
Number of boys. 15.
Time workers. All.
Highest wages paid to men per day. $3 50; spring-makers, $9 to $12 per week.
Lowest wages paid to men per day. $2 50; upholsterers, $2 50 to $3 50 per day.
Average wages paid to men per week. $15; cabinet-makers, $2 50 to $3 per day.
Average annual earnings of men. $750.
Highest wages paid to women per week. $12 50.
Lowest wages paid to women per week. $7 50.
Average wages paid to women per week. $9.
Average annual earnings of women. $450.
Wages paid to boys per week. $3 to $12.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
Have men employed in your establishment engaged in any strike; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. Upholsterers.
For what employment do you have the most applicants. Laborers.
What is the sanitary condition of the various departments in your establishment. Excellent.

Varnish.

Articles manufactured. Varnish.
How much have you paid for labor in the last twelve months. $12,000.
What is the greatest number of hands employed at one time during the last year. 12.
Number of men. 9.
Number of boys. 3.
Number of time workers. All.
Highest wages paid to men per week. $20, varnishers.
Lowest wages paid to men per week. $12.
Average wages paid to men per week. $15, helpers.
Average annual earnings of men. $750.
Wages paid to boys per week. $3 to $5.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Increased. How much. 10 per cent.
Number of days lost during the year. Holidays only.
What class of employés do you have the most trouble in getting. Experienced varnish makers.
For what employment do you have the most applicants. Laborers.
What is the sanitary condition of the various departments in your establishment. Good.

Vermicelli and Macaroni.

Articles manufactured. All kinds vermicelli, and macaroni, and pastes.
How much have you paid for labor in the last twelve months. $7,500.
What is the greatest number of hands employed at one time during the last year. 12.
Number of men. 12.
Time workers. All.
Highest wages paid to men per month. $50.
Lowest wages paid to men per month. $50.
Average wages paid to men per month. $50.
Average annual earnings of men. $600.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Monthly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
What class of employés do you have the most trouble in getting. No trouble.
For what employment do you have the most applicants. Experienced men.
What is the sanitary condition of the various departments in your establishment. Good.

Wines.

Articles manufactured. All kinds of California wines.
How much have you paid for labor in the last twelve months. $30,000.
What is the greatest number of hands employed at one time during the last year. 500.
Number of men. 500. 30 regular.
Number of time workers. All.
Highest wages paid to men per month. $150, wine-makers, etc.
Lowest wages paid to men per month. $65.
Average wages paid to men per month. $75.
Average annual earnings of men. $900.
Number of hours worked per day. 10 in summer and 9 in winter.
Number of months run on full time. 12.
How are wages paid. Monthly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.
What class of employés do you have the most trouble in getting. Can get all we want.
For what employment do you have the most applicants. Laborers.
What is the sanitary condition of the various departments in your establishment. Good.

Wire and Wire Rope.

Articles manufactured. Wire, wire rope, barbed wire, and all kinds of wire goods.
How much have you paid for labor in the last twelve months. $65,000.
How much have you paid for labor to Chinese. $150.
Number of men. 100. How employed. Wire-working.
Number of boys. 50.
Number of apprentices. None.
Number of piece workers. One half. Time workers. One half.
Highest wages paid to men per week. $21 to time workers, $24 to $28 to piece workers.
Lowest wages paid to men per week. $9 to time workers, $7 50 to piece workers.
Average wages paid to men per week. $12.

Average annual earnings of men. $600.

Wire-workers' Wages.—Wire-drawers, $15 to $18 per week, ten hours; wire-makers (piece work, per one hundred pounds), $12 to $18 per week, ten hours; wire-cleaners (piece work, per one hundred pounds), $10 to $12 per week, ten hours; wire-weavers, $15 to $21 (average, $18) per week, ten hours; wire rope makers, $15 per week, ten hours; barb wire fence makers, $10 per week, ten hours.

Wages paid to boys per week. $3 50 to $6 and $9.

Number of hours worked per day. 10.

Number of months run on full time. 12.

What is the average number of Chinese hands employed in the last twelve months. None employed.

How are wages paid. Weekly.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Only holidays.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling, and number engaged in the strike. None.

What class of employés do you have the most trouble in getting. Experienced wire-workers and weavers.

For what employment do you have the most applicants. Laborers.

What is the sanitary condition of the various departments in your establishment. Good.

SUNDRY OCCUPATIONS OTHER THAN MANUFACTURERS.

Assayers.

Business. Assayers of gold, silver, and refiners of bullion and ores.

Number of men employed. 11. How employed. Assayers, metal refiners, and samplers.

Highest wages paid to men. $150 per month, to assayers and head melter.

Lowest wages paid to men. $75 per month.

Average wages paid to men. $140.

Average annual earnings of men. Have employment the year round.

Number of hours worked per day. According to work on hand, but never more than 8.

Number of months run on full time. 12.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays.

Bacon and Lard.

Articles manufactured. Bacon, lard, hams, beef, pork, etc.

How much have you paid for labor in the last twelve months. $40,302 60.

How much have you paid for labor to Chinese. January to May 1, 1886, $2,206 10.

What is the greatest number of hands employed at one time during the last year. 61.

Number of men. 61.

Highest wages paid to men per month. $100.

Lowest wages paid to men per month. $37.

Average wages paid to men per month. $60.

Wages paid to boys per month. $25.

Number of hours worked per day. 11.

Number of months run on full time. 12.

Highest wages paid to Chinese. $1 50 per day.

Lowest wages paid to Chinese. $1 16⅔ per day.

How are wages paid. Monthly.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.

What is the sanitary condition of the various departments in your establishment. Good.

Boat Builder.

Business. Boat builder.

How much have you paid for labor in the last twelve months. $1,000.

What is the greatest number of hands employed at one time during the last year. 3.

Number of men, 3.

Number of boys. 1.

Number of apprentices. 1.

Number of time workers. All.

Highest wages paid to men per week. $21.

Lowest wages paid to men per week. $18.

Average wages paid to men per week. $21.

Average annual earnings of men. $870.

Wages paid to boys per week. $3 to $9.

Number of hours worked per day. 9.

Number of months run on full time. 12.

How are wages paid. Weekly.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Ship-carpenters for work.

Book-binders.

Business. Book-binders and paper rulers.
What is the greatest number of hands employed at one time during the last year. 40.
Number of men. 9. How employed. Book-binders.
Number of women. 16. How employed. Book-folders.
Number of boys. 5.
Number of apprentices. 5. Upon what condition employed. Run errands at first and work from grade to grade. Commence at $3 per week.
Time workers. All.
Highest wages paid to men per week. $24.
Lowest wages paid to men per week. $15.
Average wages paid to men per week. $18.
Highest wages paid to women per week. $10.
Lowest wages paid to women per week. $5.
Average wages paid to women per week. $6.
Wages paid to boys per week. $3 to $12. Girls. Same as women.
Number of hours worked per day. Males, 10; females, 9.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
What class of employés do you have the most trouble in getting. Extra finishers.
For what employment do you have the most applicants. Girls.
What is the sanitary condition of the various departments in your establishment. Excellent.

Coffee, Spices, Etc.

Articles manufactured. Coffee, spices, etc.
What is the greatest number of hands employed at one time during the last year. 40.
Highest wages paid to men per week. $25. Coffee roasters, $18.
Lowest wages paid to men per week. $6. Coffee roasters, $15.
Average wages paid to men per week. $9. Coffee roasters, $15.
Average annual earnings of men. Factory runs all the year.
Highest wages paid to women per week. $5.
Lowest wages paid to women per week. $4.
Average wages paid to women per week. $4 50.
Wages paid to boys per week. $5.
Number of hours worked per day. 10.
Number of months run on full time. 12.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. For everything.
What is the sanitary condition of the various departments in your establishment. Fine.

Cloaks.

Articles manufactured. Cloaks.
How much have you paid for labor in the last twelve months. $20,000.
What is the greatest number of hands employed during the past year. 75.
Number of men. 4. How employed. Cutting and trimming.
Number of women. 71. How employed. Sewing, hand machine.
Number of piece workers. 60. Time workers. 15.
When working in teams, the number in a team. 25.
Highest wages paid to men per week. $25.
Lowest wages paid to men per week. $10.
Average wages paid to men per week. $15.
Average annual earnings of men. $750.
Highest wages paid to women per week. $9.
Lowest wages paid to women per week. $3.
Average wages paid to women per week. $7 50.
Average annual earnings of women. $250.
Number of hours worked per day. 9.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
What class of employés do you have the most trouble in getting. Experienced hands.
For what employment do you have the most applicants. Girls.
What is the sanitary condition of the various departments in your establishment. Good.

Electro-Plating.

Business. Electro-plating.
How much have you paid for labor in the last twelve months. $6,000.
What is the greatest number of hands employed at one time during the last year. 10.

Number of men. 5.
Number of boys. 5.
Number of apprentices. 1. Upon what condition employed. Wages, $3 per week first year; increased $1 per week every year. Term, 4 years.
Number of time workers. All.
Highest wages paid to men per week. $20; electroplaters.
Lowest wages paid to men per week. $14: helpers.
Average wages paid to men per week. $15; helpers.
Average annual earnings of men. $750.
Wages paid to boys per week. $8.
Number of hours worked per day. 9.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Increased. How much. 10 per cent.
Number of days lost during the year. Holidays.
What class of employés do you have the most trouble in getting. Electroplaters.
For what employment do you have the most applicants. Helpers.
What is the sanitary condition of the various departments in your establishment. Good.

Firearms.

Business. General repairing guns and firearms.
How much have you paid for labor in the last twelve months. $1,800.
What is the greatest number of hands employed at one time during the last year. 3.
Number of men. 3. How employed. Repairing guns and pistols.
Number of time workers. All.
Highest wages paid to men per week. $21.
Lowest wages paid to men per week. $15.
Average wages paid to men per week. $18.
Average annual earnings of men. $900.
Number of hours worked per day. 9½.
Number of months run on full time. 12.
Have wages been increased or reduced. Increased. How much. 15 per cent.
Number of days lost during the year. Holidays.
What class of employés do you have the most trouble in getting. No trouble.
For what employment do you have the most applicants. Gunsmiths.

Gas.

Article manufactured. Gas.
How much have you paid for labor in the last twelve months. $391,000.
What is the greatest number of hands employed at one time during the last year. 500.
Number of men. About 500.
Highest wages paid to men. About $3 per day.
Lowest wages paid to men. About $2 per day.
Average wages paid to men. About $3 per day.
Number of hours worked per day. Street men, 9; retort men, 12.
What is the average number of Chinese hands employed in the last twelve months. None.
Have wages been increased or reduced. Neither.
Number of days lost during the year. None.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.
What class of employés do you have the most trouble in getting. None.
What is the sanitary condition of the various departments in your establishment. Good.

Hairwork.

Business. Hairwork.
Highest wages paid to men per week. Hairworkers, $25; hairdressers, $25.
Lowest wages paid to men per week. Hairworkers, $15; hairdressers, $15.
Average wages paid to men per week. Hairworkers, $20; hairdressers, $20.
Highest wages paid to women per week. Hairworkers, $20; hairdressers, $15.
Lowest wages paid to women per week. Hairworkers, $5; hairdressers, $5.
Average wages paid to women per week. Hairworkers, $8; hairdressers, $10.
Number of hours worked per day. 9.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.

Lapidaries.

Business. Cutting and polishing quartz and precious stones.
How much have you paid for labor in the last twelve months. $2,500.
What is the greatest number of hands employed at one time during the last year. 3.
Number of men. 2.
Number of piece workers. None. Time workers. 2.
Highest wages paid to men per day. $4.

Lowest wages paid to men per day. $2 50.
Average wages paid to men per day. $3.
Average annual earnings of men. Men average nine months work in the year.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. A few.

Laundrying.

Business. Laundrying.
How much have you paid for labor in the last twelve months. $80,000.
How much have you paid for labor to Chinese. $10,500.
What is the greatest number of hands employed at one time during the last year. 200.
Number of men. 120. How employed. Washing, ironing, and laboring.
Number of women. 80. How employed. Washing, ironing, and laboring.
Number of piece workers. 40. Time workers. 160.
Highest wages paid to men per month. $75 and found.
Lowest wages paid to men per month. $20 and found.
Average wages paid to men per month. $35 and found.
Average annual earnings of men. $420 and found.
Highest wages paid to women per month. $40 and found.
Lowest wages paid to women per month. $15 and found.
Average wages paid to women per month. $25 and found.
Average annual earnings of women. $300 and found.
Wages paid to boys per month. $15 and found.
Number of hours worked per day. 9½ to 10.
Number of months run on full time. 12.
What is the average number of Chinese hands employed in the last twelve months. 50 to January 1, 1886; all Chinese were discharged from February to June, 1886.
Highest wages paid to Chinese. $40 per month.
Lowest wages paid to Chinese. $16 per month.
Average wages paid to Chinese. $35 per month.
How are wages paid. Monthly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. General holidays.
Have men employed in your establishment engaged in any strikes; if so, name trade or calling, and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Unskilled.
What is the sanitary condition of the various departments in your establishment. Fine.

Lithographer.

Business. Lithographers.
What is the greatest number of hands employed at one time during the last year. 12.
Number of men. 10. How employed. Engravers, artists, transferers, printers.
Number of boys. 2.
Number of apprentices. 2. Upon what condition employed. Receive wages from $3 to $8 per week; no conditions.
Number of piece workers. None. Time workers. All.
Highest wages paid to men per day. Lithographic artists, $8; engravers, $6; printers, $25 per week; transferers.
Lowest wages paid to men per day. Lithographic artists, $6; engravers, $4; printers, $15 per week.
Average annual earnings of men. Work all the year around.
Number of hours worked per day. Engravers and artists, 8; all others, 10.
Number of months run on full time. 12.
What is the average number of Chinese hands employed in the last twelve months. None.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Engravers and artists.

Lumber.

Articles manufactured. Redwood lumber.
How much have you paid for labor in the last twelve months. $70,000.
What is the greatest number of hands employed at one time during the last year. 150.
Number of men. 120.
Number of time workers. All.
Highest wages paid to men per month. $125, bull-drivers and board; lumbermen, $100 and board.

Lowest wages paid to men per month. $80, bull-drivers and board; lumbermen, $35 and board.

Average wages paid to men per month. $100, bull-drivers and board; lumbermen, $50 and board.

Highest wages paid to men per month. $70, loggers and board.

Lowest wages paid to men per month. $35, loggers and board.

Average wages paid to men per month. $50, loggers and board.

Number of hours worked per day. 11.

Number of months run on full time. 12.

How are wages paid. Monthly.

Have wages been increased or reduced. Increased. How much. 15 per cent.

Number of days lost during the year. Holidays.

What class of employés do you have the most trouble in getting. No trouble.

For what employment do you have the most applicants. Laborers and loggers.

What is the sanitary condition of the various departments in your establishment. Work in open air.

Remarks.—Lumbermen of Humboldt Bay are the best paid unskilled in the world.

Marble Sawyer.

Articles manufactured. Marble slabs.

What is the greatest number of hands employed at one time during the last year. 4.

Number of men. 4. How employed. Sawing marble.

Highest wages paid to men per day. $3.

Lowest wages paid to men per day. $2.

Average wages paid to men per day. $2 50.

Number of hours worked per day. 10.

Number of months run on full time. 12.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays only.

Have men employed in your establishment engaged in any strike; if so, please name trade or calling and number engaged in the strike. No.

What class of employés do you have the most trouble in getting. None.

For what employment do you have the most applicants. Marble sawyers.

What is the sanitary condition of the various departments in your establishment. Excellent.

Monuments.

Articles manufactured. Monuments and all kinds of marble and stone work.

How much have you paid for labor in the last twelve months. $10,080.

What is the greatest number of hands employed at one time during the last year. 25.

Number of men. 18.

Number of boys. 2.

Number of apprentices. 2.

Number of time workers. All.

Highest wages paid to men per day. $3 50. Marble-cutters, $3 50; granite-cutters, $4; polishers, $2 50; carvers, $6; letterers, $4.

Lowest wages paid to men per day. $2. Marble-cutters, $2 75; granite-cutters, $2 50; polishers, $2; carvers, $4; letterers, $4.

Average wages paid to men per day. $3. Marble-cutters, $3 50; granite-cutters, $3 50; polishers, $2 50; carvers, $5; letterers, $4.

Average annual earnings of men. $900.

Wages paid to boys per week. $3 to $7.

Number of hours worked per day. 9.

Number of months run on full time. 12.

How are wages paid. Bi-weekly.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays only.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. One strike on account of failure to pay wages on pay day; twenty marble-cutters and polishers.

What class of employés do you have the most trouble in getting. No trouble to get any.

For what employment do you have the most applicants. Marble-cutters.

What is the sanitary condition of the various departments of your establishment. Good.

Oystermen.

Business. Oystermen.

How much have you paid for labor in the last twelve months. $36,000.

What is the greatest number of hands employed at one time during the last year. 75.

Number of men. 60.

Number of time workers. All.

Highest wages paid to men per month. $85 and found. Boatmen, $50 and found.

Lowest wages paid to men per month. $30 and found (oystermen). Boatmen, $50 and found.

Average wages paid to men per month. $40 and found (oystermen). Boatmen, $50 and found.

Average annual earnings of men. $480, board and lodging.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Monthly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. None.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Many.

Painters (House and Sign).

Business. House and sign and ornamental and fresco painter.
How much have you paid for labor in the last twelve months. $22,460.
What is the greatest number of hands employed at one time during the last year. 60.
Number of men. 60.
Number of boys. 1.
Number of apprentices. None.
Number of time workers. All.
Highest wages paid to men. Brush hands, $18 per week; grainers, $5 per day; grainer's helper, $2 50 per day; fresco painters, $10 per day; sign and ornamental, $6 per day.
Lowest wages paid to men. Brush hands, $18 per week; grainers, $5 per day; grainer's helpers, $2 50 per day; fresco painters, $3 per day; sign and ornamental, $4 per day.
Average wages paid to men. Brush hands, $18 per week; grainers, $5 per day; grainer's helpers, $2 50 per day; fresco painters, $6 per day; sign and ornamental, $5 per day.
Average annual earnings of men. Brush hand, $790; grainer, $1,500; grainer's helper, $750; fresco, $1,120; sign, etc., $1,500.
Number of hours worked per day. Fresco, sign, and grainer, 8; balance, 9.
Number of months run on full time. 12.
What is the average number of Chinese hands employed in the last twelve months. None.
How are wages paid. Weekly.
Have wages been increased or reduced. Brush hands reduced. How much. 15 per cent.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. Two years past; refused to be paid by the hour.
What class of employés do you have the most trouble in getting. No trouble.
For what employment do you have the most applicants. Poor hands.
What is the sanitary condition of the various departments in your establishment. There is no fear for painter's colic if proper care is taken as regards cleanliness and whisky is left alone.

Photographers.

Business. Photographers.
How much have you paid for labor in the last twelve months. $19,000.
What is the greatest number of hands employed at one time during the last year. 20.
Number of men. 15.
Number of women. 3.
Number of boys. 2.
Time workers. All.
Highest wages paid to men per week. Operators, $35; retouchers and printers, $25.
Highest wages paid to women per week. Colorists, $25; retouchers, $20.
Number of hours worked per day. Operators, 7; retouchers, 7; printers, 9.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
What class of employés do you have the most trouble in getting. None.

Printing.

Business. Job printing.
How much capital have you invested in your business. $40,000.
What is the value of goods manufactured at your establishment in the last twelve months. $48,091 21.
How much have you paid for labor in the last twelve months. $17,634 54.
What is the greatest number of hands employed at one time during the last year. 43.
Number of men. 15. How employed. Job printers, pressmen, and compositors.
Number of women. 14. How employed. Compositors, and one canvasser.
Number of boys. 2.
Number of apprentices. 12. Upon what condition employed. Four years' contract.
Number of piece workers, 21; time workers, 22.
Highest wages paid to men per week. $30.
Lowest wages paid to men per week. Compositors, 40 cents per 1,000 ems; pressmen, $14 per week.
Average wages paid to men per week. Journeymen, $22.
Average annual earnings of men. Journeymen, $1,144.
Highest wages paid to women per week. $12 15.

Lowest wages paid to women per week. $2 10.

Average wages paid to women per week. $7 04.

Average annual earnings of women. $366 08.

Wages paid to boys per week. $3.

Number of hours worked per day. 10.

Number of months run on full time. 12.

How are wages paid. Weekly for compositors and journeymen; monthly for apprentices.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays only.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.

What class of employés do you have the most trouble in getting. Apprentices.

For what employment do you have the most applicants. Compositors.

What is the sanitary condition of the various departments of your establishment. All good.

Sails, Awnings, and Tents.

Articles manufactured. Sails, awnings, and tents.

How much have you paid for labor in the last twelve months. $10,000.

What is the greatest number of hands employed at one time during the last year. 25.

Number of men. 14.

Number of boys. 2.

Number of apprentices. 2. Upon what condition employed. Are paid wages, and are not bound by any conditions.

Number of time workers. All.

Highest wages paid to men per week. $24, sail-makers.

Lowest wages paid to men per week. $18, sail-makers.

Average wages paid to men per week. $24, sail-makers.

Average annual earnings of men. $750.

Wages paid to boys per week. $5 to $12.

Number of hours worked per day. 9.

Number of months run on full time. 12.

How are wages paid. Weekly.

Have wages been increased or reduced. Neither.

Number of days lost during the year. Holidays.

Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.

What class of employés do you have the most trouble in getting. No trouble.

For what employment do you have the most applicants. Sail-makers.

What is the sanitary condition of the various departments in your establishment. Good.

Ship Rigger.

Business. Ship rigger.

How much have you paid for labor in the last twelve months. $3,000.

What is the greatest number of hands employed at one time during the last year. 10.

Number of men. 6.

Number of boys. 1.

Number of apprentices. 1.

Time workers. All.

Highest wages paid to men per day. $5.

Lowest wages paid to men per day. $3 15.

Average wages paid to men per day. $3 50.

Average annual earnings of men. $700; first class man, $1,000.

Wages paid to boys per week. $7 50.

Number of hours worked per day. 9.

Number of months run on full time. 12.

How are wages paid. Weekly.

Have wages been increased or reduced. Increased.

Number of days lost during the year. None.

What class of employés do you have the most trouble in getting. First class experienced riggers.

For what employment do you have the most applicants. Riggers, many of no account.

Note.—Riggers' Union has given notice that wages are to be $4 per day after November 1, 1886.

Slaughter House.

Business. Slaughtering.

How much have you paid for labor in the last twelve months. $31,000.

What is the greatest number of hands employed at one time during the last year. 30.

Highest wages paid to men per month. Butchers, $250; teamsters, $100; herders and vaqueros, $50.

Lowest wages paid to men per month. Butchers, $50.

Average wages paid to men per month. Butchers, $88.

Number of hours worked per day. 10 to 14.

Number of months run on full time. All year.

How are wages paid. Monthly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. None.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. No.

Stevedores.

Business. Stevedores and ballasters.
How much have you paid for labor in the last twelve months. $90,000.
What is the greatest number of hands employed at one time during the last year. 200.
Number of men. 137.
Number of time workers. All.
Highest wages paid to men per day. Stevedore foremen, $6; stevedores, $5; engineers, $5.
Lowest wages paid to men per day. Ballastmen, $3.
Average annual earnings of men. Stevedores, $720; ballastmen, $500.
Average wages paid to men. Stevedores, per hour, 55 cents; ballasters, per hour, 30 cents.
Number of hours worked per day. Stevedores, 9; ballasters, 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Laborers.
What is the sanitary condition of the various departments in your establishment. Work in open air and hold of ship.

Teamsters.

Business. Teamsters.
How much have you paid for labor in the last twelve months. $20,000.
What is the greatest number of hands employed at one time during the last year. 25.
Number of men. 25.
Number of time workers. All.
Highest wages paid to men per week. $15.
Lowest wages paid to men per week. $12.
Average wages paid to men per week. $15.
Number of hours worked per day. 11.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays only.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. None.
What class of employés do you have the most trouble in getting. None.
For what employment do you have the most applicants. Teamsters.

Telegraphy.

Business. Telegraphy.
How much have you paid for labor in the last twelve months. $110,000 in San Francisco.
What is the greatest number of hands employed at one time during the past year. 75.
Number of men. 24. How employed. Telegraph operators.
Number of women. 7. How employed. Telegraph operators.
Highest wages paid to men per month. $90.
Lowest wages paid to men per month. $60.
Average wages paid to men per month. $84 06.
Highest wages paid to women per month. $70.
Lowest wages paid to women per month. $50.
Average wages paid to women per month. $56 42.
Wages paid to boys per month. Messengers, $12 to $15.
Number of hours worked per day. 9.
Number of months run on full time. 12.
How are wages paid. Monthly.
Have wages been increased or reduced. Neither.
What class of employés do you have the most trouble in getting. First-class operators.
For what employment do you have the most applicants. Operators.

Wood Carving.

Articles manufactured. Wood carvings.
Number of men employed. 2. How employed. Carving wood.
Number of time workers. All.
Highest wages paid to men per day. $3.
Lowest wages paid to men per day. $3.
Average wages paid to men per day. $3.

Average annual earnings of men. $800. Average 9 months' work.
Number of hours worked per day. 9.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Increased. How much. 10 per cent.
Number of days lost during the year. 3; one lost when no work.
What class of employés do you have the most trouble in getting. None.
What is the sanitary condition of the various departments in your establishment. Good.

Wool Sorting, Etc.

Business. Wool sorting, grading, and scouring.
What is the greatest number of hands employed at one time during the last year. 40.
Number of men. 33.
Number of boys. 1.
Time workers. All.
Highest wages paid to men per day. Sorters, $2 50; graders, per month, $125; scourers, per week, $20; pressers, per day, $3.
Lowest wages paid to men per day. Sorters, $2 50; graders, per month, $100; scourers, per week, $20; pressers, per day, $3.
Average wages paid to men per day. Sorters, $2 50; graders, per month, $100; scourers, per week, $20; pressers, per day, $3.
Average annual earnings of men. $750.
Number of hours worked per day. 10.
Number of months run on full time. 12.
How are wages paid. Weekly.
Have wages been increased or reduced. Neither.
Number of days lost during the year. Holidays.
Have men employed in your establishment engaged in any strikes; if so, please name trade or calling and number engaged in the strike. April, 1886, fourteen wool-sorters wanted piece work instead of time work; sorters acceded to old terms.

NOTE.—Chinese are not employed in this establishment, but by others, in sorting and scouring, and are paid $1 per day.

CHAPTER XIII.

APPENDIX.

Assessors' Returns.

In this chapter, under the above head, I will give a description of our State statistically.

The method by which this was attempted to be done, was in strict compliance with the law creating this bureau.

The Assessors of the various counties were appealed to through a circular of which the following is a copy, viz.:

CIRCULAR.

Office of the State Bureau of Labor Statistics,
Corner of Geary and Dupont Streets, San Francisco, ——, 188—.

To —— ——:

Dear Sir: The Legislature last winter created the Bureau of Labor Statistics. The law is of the most comprehensive character, embracing within its broad scope almost every industry, trade, and interest common to civilized society; in fact, it imposes a very grave responsibility on the chief officer and his assistant, while but a limited appropriation is made to carry out its provisions. Hence we are constrained to call upon the people, through their representatives in office throughout the State, to furnish us with such information as the importance of this work demands and the *law* provides we shall secure. Should we be baffled in this, the *report* expected to be sent forth from this office will not come up to the standard that should naturally be expected.

When you consider the vast amount of correspondence, the number of officials we *must* communicate with—such as the various State officials, railroad officials, City and County Assessors, County Clerks, mining superintendents and operators, labor unions, manufacturers of every commodity imaginable, farmers, educational institutions, trades assemblies, organized protective labor and beneficial societies, artisans, producers, merchants, and, in fact, all institutions calculated to throw any light on the condition of the people of this State in a social, political, sanitary, commercial, or moral sense—the magnitude of this effort is self-apparent, and the limited advantages we enjoy almost compel us to forego the task, were we not fully cognizant of the generous response that will be given our questions by all who are interested in the future welfare of California.

We are already in communication with the heads of the various departments of the National Government, particularly with Hon. Joseph Nimmo, Jr., Chief of the Bureau of Statistics of the Treasury Department, and with each of the Labor Bureaus of the different States of the Union. Much valuable information has been secured through those agencies.

A compliance, therefore, with the questions we present to you will enable us ere the next Legislature convenes to lay before that body some very valuable data, if we are to judge from what is daily being received from the sources above alluded to.

The bureau is clothed with ample authority under the law to compel answers, but it much prefers to depend upon the GOOD WILL of the people. It may not be out of place here to insert Sections 4, 5, 7, and 8, which are as follows, viz.:

"Sec. 4. It shall be the duty of all officers of State departments, and the Assessors of the various counties of the State, to furnish, upon the written request of the Commissioner, all the information in their power necessary to assist in carrying out the objects of this Act; and all printing required by the bureau in the discharge of its duty shall be performed by the State Printing Department, and at least three thousand (3,000) copies of the printed report shall be furnished the Commissioner for free distribution to the public.

"Sec. 5. Any person who willfully impedes or prevents the Commissioner or his deputy in the full and free performance of his or their duty, shall be guilty of a misdemeanor, and upon conviction of the same shall be fined not less than ten (10) nor more than fifty (50) dollars, or imprisoned not less than seven (7) nor more than thirty (30) days in the county jail, or both.

"SEC. 7. The Commissioner shall have power to send for persons and papers, whenever in his opinion it is necessary, and he may examine witnesses under oath, being hereby qualified to administer the same in the performance of his duty, and the testimony so taken must be filed and preserved in the office of said Commissioner; he shall have free access to all places and works of labor.

"SEC. 8. The Commissioner shall appoint a deputy, who shall serve the same time and have the same powers as the said Commissioner, as set forth in the preceding sections."

Your own judgment teaches you that it is not an uncommon thing for Legislatures to pass laws of an impracticable character. This is most frequently due to a lack of a knowledge of FACT. Hence, we conclude that what is most necessary to the ordinary legislator IS INFORMATION. To secure a knowledge of our State and its wonderful resources, as well as its great productions, is one of the principal objects of this bureau, and, although the appropriation is small, by the assistance of each officer applied to, we will be enabled to lay before our law-making powers a proper exhibit of what our State *is*, and leave to *them* the duty of enacting such laws as are best calculated to make her what she *ought to be*, the first in the great sisterhood of States.

Besides, we desire that our report should compare favorably with those of other bureaus of a similar character throughout the Union, and to succeed in that direction we are *entirely* dependent upon the promptness and readiness of the officials, newspaper proprietors, and the people we address, to comply with our request.

It should be a matter of pride with every one *sincerely* interested in the future of California to contribute their share to this meritorious work, as they will find "at the end of two years that the matter thus accumulated will prove far more valuable than tons of campaign speeches."

We might add, also, that should the officers of any county fail or refuse to respond to our inquiries, *the people of the whole State* will regret to see that county exhibiting a blank space in the statistical tables.

And, still further, we must say that, while the bureau will be obliged to inquire considerably into details of private business in order to *get at the aggregate wealth of the State, the private affairs of individuals will be kept strictly confidential.*

Or, in the language of Hon. John Collett, formerly Chief of the Bureau of Labor in the State of Indiana: "For instance, inquiries are made of A, B, C, D, and E, who are, we will say, merchants and manufacturers; what their sales have been during the past year; how much cash sales; how much on time; what the claims outstanding; what their *bona fide* indebtedness; how many persons employed, male and female; what wages," etc. Not for the purpose of prying into the private business of each, but for the purpose of showing the aggregate of such business in the State and the several counties of the same. *All these will be destroyed as soon as the total for the county is known.* So with each line of business. This is already done every year on assessment blanks, and every ten years by the United States census takers.

We most respectfully call the attention of all Assessors to Forms 1, 2, 3, 4, 5, 6, 7, and 8, which accompany this circular. We would respectfully request you to hand Form "A" to the different manufacturers or employers of labor, to be answered by them and returned to you; and Form "B" you will please hand or send to all employés in the various branches of industry, including agriculture, to be also answered by them and returned to you.

In conclusion, we appeal to the press of the entire State to assist us all they can in furthering the objects of this bureau in its endeavor to secure a knowledge of the relative rates wages paid in this State, so as to enable us to compare with similar results in other States of the Union, as such knowledge will prove beneficial to all classes of our people.

Trusting, therefore, that you will generously respond to our inquiries, we have the honor to subscribe ourselves,

Your obedient servants,

JOHN S. ENOS, Commissioner.
O. ALBERT BERNARD, Deputy Commissioner.

In order that an idea may be obtained of the means made use of to gather the information referred to in said circular, a copy in blank in the various forms is as follows, viz.:

STATE BUREAU OF LABOR STATISTICS.

Statistical Statement made by —— ——, Assessor of ——— Township (or County).

FORM NO. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county or township contain?
2. How many acres of land (exclusive of town lots) are under cultivation?
3. How many acres of land (exclusive of town lots) are unfit for cultivation?
4. How many acres of land (exclusive of town lots) are timber land?
5. How many acres of land (exclusive of town lots) are open for preëmption?
6. What is the maximum price per acre (exclusive of town lots)?
7. What is the minimum price per acre (exclusive of town lots)?
8. What is the average price per acre (exclusive of town lots)?
9. How many ranches are in your county (or township)?
10. How many ranch owners?
11. How many have from three to ten acres?
12. How many have from ten to twenty-five acres?
13. How many have from twenty-five to fifty acres?
14. How many have from fifty to one hundred acres?
15. How many have from one hundred to two hundred and fifty acres?
16. How many have from two hundred and fifty to five hundred acres?
17. How many have from five hundred to one thousand acres?
18. How many have from one thousand to two thousand five hundred acres?
19. How many have from two thousand five hundred to five thousand acres?
20. How many have five thousand acres and over?
21. How many ranches are worked by owners?
22. How many ranches are worked in shares between owner and renter?
23. How many ranches are worked in shares between owner and laborers?
24. How many ranches are rented?
25. What is the maximum rent per acre?
26. What is the minimum rent per acre?
27. What is the average rent per acre?
28. How many buildings of all kinds (exclusive of city or town buildings) does your county (or township) contain?
29. What is their value?
30. How many miles of fences are in your county (or township)?
31. What is their cost per mile?
32. What is the value of all the agricultural implements in your county (or township)?
33. How many labor-saving agricultural implements are in your county (or township)?
34. What is their value?
35. What is their combined horse (or man) power?
36. What percentage of ranch cultivators in your county (or township) use labor-saving machines?

FORM NO. 1—Continued.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county (or township)?
38. What are their ages? From ——, to ——.
39. How many are under fifteen years of age?
40. How many of the laborers are females?
41. What are their ages? From ——, to ——.
42. What are the maximum wages paid (including board) per month?
43. What are the minimum wages paid (including board) per month?
44. What are the average wages paid (including board) per month?
45. What industry of agriculture pays the maximum?
46. What industry of agriculture pays the minimum?
47. How many months in the year are laborers generally employed?
48. When unemployed in agriculture what industry do they pursue to gain a livelihood?
49. What are the maximum hours of labor per diem?
50. What are the minimum hours of labor per diem?
51. What are the average hours of labor per diem?
52. Are those working over the regular hours constituting a day's work, paid extra?
53. If so, how much per hour?
54. If from sickness laborers must abstain from work, are any deductions made from his wages?
55. How many road laborers are in your county (or township)?
56. What is the wages paid to them?
57. What is the laborer's condition in general? Morally, ———; physically, ———; mentally, ———.
58. How many laborers (exclusive of Chinese) are in your county (or township) unemployed?
59. How many of the unemployed are native Americans?
60. How many of the unemployed are foreigners?
61. Their nationality?
62. What are their ages? From ——, to ——.
63. How many under fifteen?
64. How many are females? ———. Their nationality?
65. What are the causes of their idleness? (Please state everything you know about it.)
66. What steps can be taken, or what is necessary, to obtain employment for all in your county (or township)?
67. How do they obtain sustenance and clothing?
68. In what condition are the roads in your county (railroads excluded)?
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit?
70. How are the sanitary conditions of the lands in your county?

FORM

Relating to Employés in Mechanical and

Number of Question.	DESCRIPTION OF ITEMS.
1	How many asphaltum workers are employed in the whole county (or township)
2	How many awning-makers are employed in the whole county (or township)
3	How many employés in agricultural implements in the whole county (or township)
4	How many artificial flowers employés in the whole county (or township)
5	How many bag (cotton) manufacturers in the whole county (or township)
6	How many bag (paper) manufacturers in the whole county (or township)
7	How many bakers in the whole county (or township)
8	How many brewers in the whole county (or township)
9	How many blacksmiths in the whole county (or township)
10	How many boiler-makers in the whole county (or township)
11	How many brass-molders in the whole county (or township)
12	How many book-binders in the whole county (or township)
13	How many brick-makers in the whole county (or township)
14	How many broom-makers in the whole county (or township)
15	How many brush-makers in the whole county (or township)
16	How many box-makers (cigar) in the whole county (or township)
17	How many box-makers (wood, packing) in the whole county (or township)
18	How many cabinet-makers in the whole county (or township)
19	How many candle-makers in the whole county (or township)
20	How many canneries (fish, fruit, etc.) employés in the whole county (or township)
21	How many carpenters and joiners in the whole county (or township)
22	How many carpenters (ship) in the whole county (or township)
23	How many carriage and wagon makers in the whole county (or township)
24	How many calkers (ship) in the whole county (or township)
25	How many cement-makers in the whole county (or township)
26	How many cigar-makers in the whole county (or township)
27	How many confectioners in the whole county (or township)
28	How many coffee and spice mills employés in the the whole county (or township)
29	How many coopers in the whole county (or township)
30	How many copper-smiths in the whole county (or township)
31	How many cutlers in the whole county (or township)
32	How many employés in distilleries in the whole county (or township)
33	How many employés in dairies in the whole county (or township)
34	How many employés in glassworks in the whole county (or township)
35	How many glove-makers in the whole county (or township)
36	How many glue-makers in the whole county (or township)
37	How many gunsmiths in the whole county (or township)
38	How many hat and cap makers in the whole county (or township)
39	How many iron-molders in the whole county (or township)
40	How many ink and mucilage makers in the whole county (or township)
41	How many locksmiths in the whole county (or township)
42	How many employés in limekilns in the whole county (or township)
43	How many machinists in the whole county (or township)
44	How many marble-cutters in the whole county (or township)
45	How many employés in watch factories in the whole county (or township)
46	How many millers in the whole county (or township)
47	How many pattern-makers in the whole county (or township)
48	How many employés in paper mills in the whole county (or township)
49	How many potters in the whole county (or township)
50	How many employés in powder mills in the whole county (or township)
51	How many plumbers in the whole county (or township)
52	How many employés in rolling mills in the whole county (or township)
53	How many rope-makers in the whole county (or township)
54	How many saddlers and harness-makers in the whole county (or township)
55	How many sail-makers in the whole county (or township)
56	How many salt-makers in the whole county (or township)
57	How many sash, door, and blind makers in the whole county (or township)
58	How many shingle-makers in the whole county (or township)
59	How many shoe-makers in the whole county (or township)
60	How many soda works employés in the whole county (or township)

No. 2.

Manufacturing Industries (Chinese Excluded).

Total Numbers	Hours Constituting a Day's Work.			Sex.		Wages Paid to Males.				Wages Paid to Females.			
	Maximum	Minimum	Average	Males	Females	Maximum	Minimum	Average	With or Without Board	Maximum	Minimum	Average	With or Without Board

Form No. 2—

Number of Question	Description of Items.
61	How many stone-cutters in the whole county (or township)
62	How many tailors in the whole county (or township)
63	How many tanners in the whole county (or township)
64	How many tinsmiths in the whole county (or township)
65	How many upholsterers in the whole county (or township)
66	How many wheelwrights in the whole county (or township)
67	How many wine manufacturers in the whole county (or township)
68	How many willow and woodware employés in the whole county (or township)
69	How many woolen mills employés in the whole county (or township)
70	How many of the aforementioned professions are unemployed
71	Their nationality
72	Their ages. From
73	The causes
74	How do they manage to subsist

Continued.

Total Number	Hours Constituting a Day's Work.			Sex.		Wages Paid to Males.				Wages Paid to Females.			
	Maximum	Minimum	Average	Males	Females	Maximum	Minimum	Average	With or Without Board	Maximum	Minimum	Average	With or Without Board

FORM

Relating to Mines and

Number of Question	Description of Items.
1	How many asphaltum mines are in your county (or township)
2	How many asphaltum miners are in your county (or township)
3	How many coal mines are in your county (or township)
4	How many coal miners are in your county (or township)
5	How many gold placer mines are in your county (or township)
6	How many gold placer miners are in your county (or township)
7	How many gold quartz mines are in your county (or township)
8	How many gold quartz miners are in your county (or township)
9	How many gold hydraulic mines are in your county (or township)
10	How many gold hydraulic miners are in your county (or township)
11	How many silver mines are in your county (or township)
12	How many silver miners are in your county (or township)
13	How many gravel mines are in your county (or township)
14	How many gravel miners are in your county (or township)
15	How many iron mines are in your county (or township)
16	How many iron miners are in your county (or township)
17	How many marble quarries are in your county (or township)
18	How many marble miners are in your county (or township)
19	How many quicksilver mines are in your county (or township)
20	How many quicksilver miners are in your county (or township)
21	How many salt mines are in your county (or township)
22	How many salt miners are in your county (or township)
23	How many granite stone quarries are in your county (or township)
24	How many granite stone miners are in your county (or township)
25	How many limestone quarries are in your county (or township)
26	How many limestone miners are in your county (or township)
27	How many sandstone quarries are in your county (or township)
28	How many sandstone miners are in your county (or township)
29	How many mines not enumerated above are in your county (or township)
30	If so, state whether worked or not, wages paid, etc.
31	How many miners in your county are unemployed
32	The causes
33	Their ages and nationality

No. 3.

Miners (Chinese Excluded).

Number of Mines	Number of Miners	Hours Constituting a Day's Work			Number of Months Employed in the Year	Wages per Day.			
		Maximum	Minimum	Average		Maximum	Minimum	Average	With or Without Board
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FORM

Relating to Transportation on Land

Number of Question.	DESCRIPTION OF ITEMS.
1	How many miles of steam railroads in operation are in your county
2	How many employés of all kinds on above are in your county
3	How many miles of unfinished steam railroads are in your county
4	How many men are employed thereon in your county
5	How many miles of street railroads (horse-power) are in your county
6	How many men are engaged thereon in your county
7	How many conductors are engaged thereon in your county
8	How many drivers are engaged thereon in your county
9	How many miles of macadamized roads are in your county
10	How many men are engaged thereon in your county
11	How many stage drivers in your county
12	How many teamsters hauling, etc., in your county
13	How many draymen hauling, etc., in your county
14	How many agents, railroad, stage, express, and steamboats, in your county
15	How many men are engaged in express companies in your county
16	How many steamboats and sailing vessels of all kinds in your county
17	How many captains thereon in your county
18	How many pilots thereon in your county
19	How many pursers thereon in your county
20	How many engineers thereon in your county
21	How many freight clerks thereon in your county
22	How many mates thereon in your county
23	How many stewards thereon in your county
24	How many cooks thereon in your county
25	How many firemen thereon in your county
26	How many sailors thereon in your county
27	How many men generally engaged in transportation are out of employment in your county
28	For what causes
29	Their ages and nationalities
30	How do they subsist

No. 4.

and Water (Chinese Excluded).

Miles of Roads	Number of Men	Average Hours per Day	Average Number of Months Engaged per Annum	Wages Paid.			
				Maximum	Minimum	Average	With or Without Board

FORM

Relating to Clerical and all other Skilled and Unskilled

Number of Question.	DESCRIPTION OF ITEMS.
1	How many auctioneers are employed in your county
2	How many advertising agents are employed in your county
3	How many assayers and chemists are employed in your county
4	How many barbers are employed in your county
5	How many bookkeepers in all departments in your county
6	How many bricklayers in your county
7	How many clerks are employed in banking institutions in your county
8	How many clerks are employed in insurance offices in your county
9	How many clerks are employed in lawyers' offices in your county
10	How many clerks are employed in general merchandising in your county
11	How many clerks are employed in county and town governments in your county
12	How many cooks are employed in your county (or town)
13	How many dentists are employed in your county (or town)
14	How many draughtsmen are employed in your county (or town)
15	How many draymen are employed in your county (or town)
16	How many dress and cloak-makers in your county (or town)
17	How many engravers in your county (or town)
18	How many engineers (civil) in your county (or town)
19	How many engineers (stationary engines) in your county (or town)
20	How many engineers (mining) in your county (or town)
21	How many florists and gardeners in your county (or town)
22	How many fishermen in your county (or town)
23	How many glaziers in your county (or town)
24	How many journalistic editors in your county (or town)
25	How many journalistic reporters in your county (or town)
26	How many hod carriers in your county (or town)
27	How many hostlers in your county (or town)
28	How many laundrymen in your county (or town)
29	How many longshoremen in your county (or town)
30	How many lumbermen in your county (or town)
31	How many milliners in your county (or town)
32	How many painters (house) in your county (or town)
33	How many fresco painters are employed in your county
34	How many plasterers are employed in your county
35	How many printers are employed in your county
36	How many photographers are employed in your county
37	How many school teachers are employed in your county
38	How many seamstresses are employed in your county
39	How many servants (domestic) are employed in your county
40	How many telegraph operators are employed in your county
41	How many telegraph messenger boys are employed in your county
42	How many waiters (restaurant, hotel, etc.) are employed in your county
43	How many watch-makers are employed in your county
44	How many well-borers (artesian) are employed in your county
45	How many well-borers (oil) are employed in your county
46	How many wood carvers and turners are employed in your county
47	How many wood-cutters are employed in your county
48	How many artisans not above enumerated are employed in your county
49	How many of foregoing mentioned professions are unemployed? Males ....; females ....; nationality ....
50	From what cause
51	How do they manage to subsist

No. 5.

Labor not before Enumerated (Chinese Excluded).

Total Number	Sex.		Hours Constituting a Day's Work.			Average No. Months engaged per Annum	Wages Paid to Males.				Wages Paid to Females.			
	Males	Females	Maximum	Minimum	Average		Maximum	Minimum	Average	With or without Board	Maximum	Minimum	Average	With or without Board
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Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county (or township)?
2. What is the total value of all the buildings in the towns of your county (or township)?
3. What is the total value of all the machineries used for mechanical and manufacturing purposes?
4. What is the total value of all materials used in manufactures in your county (or township)?
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county (or township)?
6. Are any trade unions in your county?
7. Name them?
8. What percentage of wage workers belong to them?
9. How are the sanitary conditions of the workshops of mechanics and manufacturers?
10. How are the sanitary conditions of the dwellings of the wage workers?
11. What percentage of dwellings are owned by them?
12. What is the cost of rent of dwellings generally occupied by the wage workers?
13. What is the cost of rent of rooms generally occupied by the wage workers?
14. What is the cost of food or board per month?
15. What is the cost of fuel? Wood, ——; coal, ——.
16. What is the cost of water for household purposes per month?
17. What is the cost of water for irrigation purposes?
18. How many poor people live in your county (or township)? Males, ——; females, ——.
19. Their ages? From?
20. The cause? Nationality?
21. How many rooms do they occupy?
22. What are their conditions? Sanitary? Morally?
23. What suggestions can you make to ameliorate their condition?
24. How many corporations (local) are in your county?
25. Name them?
26. Name capital stock of each?
27. Name cash capital invested in them?
28. Total amount of hands employed in each?

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county (or township)? Males, ——; females, ——.
2. What are their conditions?
3. What are their social habits?
4. What are their sanitary habits?
5. How many of them are married?
6. How many of them are employed?
7. How many of them are domestic servants?
8. What wages are paid to domestic servants per week ——; per month ——; with or without board?
9. How many of them are cooks?
10. What wages are paid them per week ——; per month ——; with or without board?
11. How many are laundrymen?
12. What wages do they earn per week ——; per month ——; with or without board?
13. How many Chinese laundries are in your county (or township)?
14. How many Chinese do they employ in your county (or township)?
15. How many Chinese cultivate the soil in your county (or township)?
16. What wages are paid them per month with board ——; without board ——?
17. How many Chinese miners are in your county (or township)?
18. What wages do they earn ——; with or without board?
19. How many of them are employed in manufactures of all kinds?
20. Name the various industries and number employed in each of them.
21. What are the wages paid them in each of the industries employed?
22. What is the gross amount paid them yearly in every branch in which they are engaged?
23. How much do they expend for rent, either per head or collectively, per month?
24. How much do they expend for food, per head or collectively, per month?
25. What percentage of the food are house products?
26. What percentage of the food is imported from foreign countries?
27. How much do they expend for clothing per head each year?
28. What percentage of the clothing is of American manufacture?
29. What percentage of the clothing is imported?
30. How much of their yearly earnings are sent out of the country?
31. What percentage to the amount of earnings?
32. To what extent does their employment come in competition with the white industrial classes?

Form No. 8. Relating to Inmates of Jails and Other Reformatory Institutions.

1. How many inmates are in your county jail and other reformatory institutions in your county? Males, ——; females, ——; Chinese, ——.
2. What are their ages? Males, ——; females, ——; Chinese, ——.
3. What are their nationalities?
4. What are their conditions and sanitary habits?
5. How many of the inmates are employed?
6. What does their employment consist of? Males, ——; females, ——; Chinese, ——.
7. To what extent does their employment come in competition with the labor of mechanics, artisans, and all other white laborers outside of reformatory institutions?

Out of fifty-one counties I received answers from thirty-five, and in order to give the statistics, exactly as received in said answers, I here give the returns in full.

The sixteen counties failing to respond to said circular, by not complying with the law, are as follows: Calaveras, Contra Costa, Fresno, Kern, Lake, Modoc, Mono, Monterey, Placer, Santa Barbara, Shasta, Solano, Tulare, Tuolumne, Los Angeles.

This system or method of collecting statistics is very unsatisfactory, and I am fully convinced that the only way to obtain the desired statistics will be by personal inspection, and report of the Commissioner or his representative.

Such personal collection has been impossible, and, under the forced economical administration of this office your Excellency will of course appreciate.

A great many of the Assessors, who complied, by filling out the blanks, did not answer every question, and to some questions made but partial answer, hence all unanswered questions in each return have been stricken out, as it would be an unnecessary and useless waste of time and expense of money to embody them in this report.

The following is the full returns of said thirty-five Assessors, without the unanswered questions, viz.:

ALAMEDA COUNTY.

Statistical Statement made by L. E. Osgood, Assessor of Washington Township, County of Alameda, April 26, 1886.

Form No. 1. Relating to Agriculture.

1. How many acres of land (exclusive of town lots) does your county or township contain. 88,838.
2. How many acres of land (exclusive of town lots) are under cultivation. 25,000.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 40,000.
4. How many acres of land (exclusive of town lots) are timber land. 5,000.
How many acres of land are fit for cultivation but not cultivated. 18,838.
5. How many acres of land (exclusive of town lots) are open for preëmption. None that I know of.
6. What is the maximum price per acre (exclusive of town lots). $250.
7. What is the minimum price per acre (exclusive of town lots). (Marsh land). $2.
8. What is the average price per acre (exclusive of town lots). $35.
9. How many ranches are in your county (or township). 550.
10. How many ranch owners. 460.
11. How many (do you mean ranches or owners?) have from three to ten acres. Owners. 73.
12. How many have from ten to twenty-five acres. 99.
13. How many have from twenty-five to fifty acres. 64.
14. How many have from fifty to one hundred acres. 75.
15. How many have from one hundred to two hundred and fifty acres. 84.
16. How many have from two hundred and fifty to five hundred acres. 30.
17. How many have from five hundred to one thousand acres. 20.
18. How many have from one thousand to two thousand five hundred acres. 8.
19. How many have from two thousand five hundred to five thousand acres. 6.
20. How many have five thousand acres and over. 1.
21. How many ranches are worked by owners. 500.

22. How many ranches are worked in shares (owner not laboring) between owner and renter. 40.
23. How many ranches are worked in shares between owner and laborers. None.
24. How many ranches are rented. 10.
25. What is the maximum rent per acre. (Cultivated land), $20.
26. What is the minimum rent per acre. $5.
27. What is the average rent per acre. $7.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county (or township) contain. (Estimated), 2,000.
29. What is their value. $347,454.
30. How many miles of fences are in your township. 625.
31. What is their cost per mile. $320.
32. What is the value of all the agricultural implements in your township. $50,000.
33. How many labor-saving agricultural implements are in your township. 250.
34. What is their value. $30,000.
35. What is their combined horse-power. 950 pounds.
36. What percentage of ranch cultivators in your township use labor-saving machines. 50 per cent.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county (or township). About 400.
38. What are their ages. From 15 to 50 years.
39. How many are under fifteen years of age. None.
40. How many of the laborers are females. None.
42. What are the maximum wages paid (including board) per month. $50.
43. What are the minimum wages paid (including board) per month. $20.
44. What are the average wages paid (including board) per month. $25.
45. What industry of agriculture pays the maximum. Harvesting.
46. What industry of agriculture pays the minimum. Seeding.
47. How many months in the year are laborers generally employed. 6.
48. When unemployed in agriculture, what industry do they pursue to gain a livelihood. The Portuguese work for their land holding countrymen for their board; others hang about the little towns, spend their money, and deplore the presence of the Chinese.
49. What are the maximum hours of labor per diem. 13.
50. What are the minimum hours of labor per diem. 10.
51. What are the average hours of labor per diem. 11.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Yes, as a rule.
55. How many road laborers are in your township. None employed constantly.
56. What is the wages paid to them. $2, when they work.
57. What is the laborer's condition in general. Morally, fair; physically, good; mentally, fair.
58. How many laborers (exclusive of Chinese) are in your township unemployed. 400, for part of the time for wages.
59. How many of the unemployed are native Americans. 150.
60. How many of the unemployed are foreigners. 250.
61. Their nationality. Portuguese, chiefly.
62. What are their ages. From 15 to 50.
65. What are the causes of their idleness. (Please state everything you know about it.) This is an agricultural community, and there is little work for laborers between seed-time and harvest, say from March to June, and from September to December.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county (or township). Vary the products, which is being done to some extent by planting orchards, vineyards, and raising vegetables.
67. How do they obtain sustenance and clothing. See 48.
68. In what condition are the roads in your township (railroads excluded). Good.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. A sober, industrious laborer can get ahead by taking such work as he can get between the busy seasons. The trouble with many is that they will not work at all unless they get full wages.
70. How are the sanitary conditions of the lands in your county. The land is naturally fertile and well drained, but has been exhausted for want of rest and alternation of crops.

FORM NO. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

3. How many employés in agricultural implements in the whole township. 15. Hours constituting a day's work, 10; males, 15; wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
7. How many bakers in the whole county (or township). 2.
8. How many brewers in the whole county (or township). 3.

9. How many blacksmiths in the whole county (or township). 33. Hours constituting a day's work, 10; males, 33; wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
21. How many carpenters and joiners in the whole township. 30. Hours constituting a day's work, 10; males, 30; wages paid, maximum, $3 50; minimum, $2; average, $2 75; without board.
23. How many carriage and wagon-makers in the whole county (or township). 8. Hours constituting a day's work, 10; males, 8; wages paid, maximum, $3 50; minimum, $2; average, $2 75; without board.
32. How many employés in distilleries in the whole township. 9.
39. How many iron molders in the whole township. 25.
43. How many machinists in the whole township. 6.
54. How many saddlers and harness-makers in the whole township. 4.
56. How many salt-makers in the whole township. 10.
59. How many shoe-makers in the whole township. 8.
64. How many tinsmiths in the whole township. 3.
65. How many upholsterers in the whole township. 2.
67. How many wine manufacturers in the whole township. 8.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

1. How many miles of steam railroads in operation are in your township. Miles of road, 27.
2. How many employés of all kinds on above are in your township. Number of men, 25. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid—Maximum, $3; minimum, $1 75; average, $2.
5. How many miles of street railroads (horse-power) are in your township. Miles of roads, 2½.
6. How many men are engaged thereon in your township. Number of men employed, 1. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid—Average, $2.

Form No. 5—Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

4. How many barbers are employed in your township. 6. Males, 6.
10. How many clerks employed in general merchandising in your township. 10. Males, 9; females, 1.
12. How many cooks are employed in your township. 40. Females, 40. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Average number of months engaged per annum, 12. Wages paid to females, maximum, $25; minimum, $10; average, $17 50.
16. How many dress and cloak makers in your township. 10. Females, 10.
19. How many engineers (stationary engines) in your township. 1. Males, 1.
21. How many florists and gardeners in your township. 2. Males, 2.
24. How many journalistic editors in your township. 1. Males, 1.
27. How many hostlers in your township. 2. Males, 2.
31. How many milliners in your township. 1; female.
32. How many painters (house) in your township. 10. Hours constituting a day's work, average, 10. Average number of months engaged per annum, 6. Wages paid to males, maximum, $3; minimum, $2; average, $2 50.
34. How many plasterers are employed in your township. 2. Hours constituting a day's work, average, 10. Average number of months engaged per annum, 6. Wages paid to males, maximum, $4; minimum, $2; average, $3.
35. How many printers are employed in your township. 1; male. Wages paid to males, average, $2 25.
37. How many school teachers are employed in your township. 25; males, 6; females, 19. Hours constituting a day's work, maximum, 6; minimum, 4; average, 5½. Average number of months engaged per annum, 9. Wages paid to males, maximum, $105; minimum, $60; average, $90. Wages paid to females, maximum, $85; minimum, $50; average, $62 50.
40. How many telegraph operators are employed in your township. 6; males.
43. How many watch-makers are employed in your township. 2; males.
44. How many well-borers (artesian) are employed in your township. 2; males.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county (or township). $3,179,390.
2. What is the total value of all the buildings in the towns of your county (or township). $173,726.
3. What is the total value of all the machineries used for mechanical and manufacturing purposes. $75,000.
4. What is the total value of all raw materials produced in the township. $160,000.

5. To what extent does the apprenticeship system prevail in the various skilled industries in your county (or township). As a rule each blacksmith's, harness-maker's, and carpenter's shop has an apprentice.
9. How are the sanitary conditious of the workshops of mechanics and manufacturers. Good.
10. How are the sanitary conditions of the dwellings of the wage workers. Good.
11. What percentage of dwellings are owned by them. 20 per cent.
12. What is the cost of rent of dwellings generally occupied by the wage workers. $5 to $10 per month.
13. What is the cost of rent of rooms generally occupied by the wage workers. $5.
14. What is the cost of food or board per month. $15.
15. What is the cost of fuel. Wood, $8 per cord; coal, $10 per ton.
16. What is the cost of water for household purposes per month. $1 where there is no pump.
18. How many poor people live in your county (or township). Only one family helped by county. Cause, death of husband, leaving large family.
24. How many corporations are in your county. 1. The Standard Sugar Refinery, at Alvarado. 2. The Christian Church.
28. Total amount of hands employed in each. Sugar Refinery about 20 men; Washington College, 4 men and 3 women.

FORM No. 7. RELATING TO CHINESE (EXCLUSIVELY).

1. How many Chinese are in your county (or township). Males, 400; females, 3.
2. What are their conditions. Comparatively good, for Chinamen.
3. What are their social habits. Socially, little is known about them; they live to themselves; even those employed in private families have no social intercourse with their employers.
4. What are their sanitary habits. In this township they are pretty clean in person, houses fairly clean; living in the country in one story houses they have advantages of space and air, that their kind in large cities do not enjoy.
5. How many of them are married. 2.
6. How many of them are employed. All, at times.
7. How many of them are domestic servants. 50.
8. What wages are paid to domestic servants per week. $3 50; per month, $15, with board.
9. How many of them are cooks. Included in 7.
10. What wages are paid to them per week. $3 50; per month, $15, with board.
11. How many are laundrymen. 15.
13. How many Chinese laundries are in your township. 5.
14. How many Chinese do they employ in your township. 10.
15. How many Chinese cultivate the soil in your township. 257, at times.
16. What wages are paid them per month. $18 to $25, without board.
19. How many of them are employed in manufactures of all kinds. 75.
20. Name the various industries and number employed in each of them. 10 in the beet sugar manufactory, 65 in the salt works.
21. What are the wages paid them in each of the industries employed. From 75 cents to $1 per day, without board.
22. What is the gross amount paid them yearly in every branch in which they are engaged. $47,000; for cooks and domestic servants, $9,000; for laundrymen, $2,080; for sugar manufactory, $1,170; for salt works, $5,850; for cultivating the soil, $28,900.
24. How much do they expend for food per head or collectively per month. $1,200.
25. What percentage of the food are home products. 50 per cent (pork and poultry).
26. What percentage of the food are imported from foreign countries. 50 per cent.
27. How much do they expend for clothing per head each year. $25.
28. What percentage of the clothing is of American manufacture. 50 per cent.
29. What percentage of the clothing is imported. 50 per cent.
30. How much of the yearly earnings are sent out of the country. Estimated at $17,600.
31. What percentage to the amount of earnings. About 37½ per cent.
32. To what extent does their employment come in competition with the white industrial classes. Many of them do work that the white laborer will not do, such as weeding beets on their knees. In other work they do compete, such as work in vineyards, renting vegetable land and orchards, and doing housework.

Statistical Statement made by A. R. Hall, Assessor of Eden Township, in Alameda County.

FORM No. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county or township contain. 70,489.
2. How many acres of land (exclusive of town lots) are under cultivation. About 42,500.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. About 15,000.
4. How many acres of land (exclusive of town lots) are timber land. Gulches contain some oak wood—probably 2,000 acres.
5. How many acres of land (exclusive of town lots) are open for preëmption. None.
6. What is the maximum price per acre (exclusive of town lots). $300.

7. What is the minimum price per acre (exclusive of town lots). $3.
8. What is the average price per acre (exclusive of town lots). $40.
9. How many ranches are in your county (or township). 960.
10. How many ranch owners. 935.
11. How many have from three to ten acres. About 250.
12. How many have from ten to twenty-five acres. About 210.
13. How many have from twenty-five to fifty acres. About 170.
14. How many have from fifty to one hundred acres. 128.
15. How many have from one hundred to two hundred and fifty acres. 150.
16. How many have from two hundred and fifty to five hundred acres. 16.
17. How many have from five hundred to one thousand acres. 7.
18. How many have from one thousand to two thousand five hundred acres. 4.
21. How many ranches are worked by owners. 865.
22. How many ranches are worked in shares between owner and renter. 65.
24. How many ranches are rented. Cash rent, 30.
25. What is the maximum rent per acre. $25.
26. What is the minimum rent per acre. $4.
27. What is the average rent per acre. $6.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county (or township) contain. About 4,740.
29. What is their value. $1,896,500.
30. How many miles of fences are in your county (or township). About 1,350.
31. What is their cost per mile. $300.
32. What is the value of all the agricultural implements in your county (or township). $45,000.
33. How many labor-saving agricultural implements are in your county (or township). About 1,250.
36. What percentage of ranch cultivators in your county (or township) use labor-saving machines. 80 per cent.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county (or township). About 600.
38. What are their ages. From 14 to 60.
39. How many are under 15 years of age. Only a few.
42. What are the maximum wages paid (including board) per month. $65.
43. What are the minimum wages paid (including board) per month. $15.
44. What are the average wages paid (including board) per month. $26.
45. What industry of agriculture pays the maximum. Thrashing grain.
46. What industry of agriculture pays the minimum. Chores and general work.
47. How many months in the year are laborers generally employed. About six or seven.
48. When unemployed in agriculture what industry do they pursue to gain a livelihood. Most tramps, and complain of hard times.
50. What are the minimum hours of labor per diem. 10.
51. What are the average hours of labor per diem. 11.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Yes.
57. What is the laborer's condition in general. Morally, fair to middling; physically, good; mentally, average ability.
58. How many laborers (exclusive of Chinese) are in your county (or township) unemployed. A varying number.
59. How many of the unemployed are native Americans. A few.
60. How many of the unemployed are foreigners. A majority.
61. Their nationality. Portuguese, Irish, Dutch, Danes, etc.
62. What are their ages. From 14 to 60.
63. How many under fifteen. Very few.
65. What are the causes of their idleness. Please state everything you know about it. Lack of any work to be done between planting and harvesting.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county (or township). Establish manufactories.
68. In what condition are the roads in your county (railroads excluded). Generally good.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. Banish saloons and saloon-keepers; let laborers expend their earnings more judiciously.
70. What are the sanitary conditions of the lands in your county. Excellent.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

3. How many employés in agricultural implements in the whole county (or township). 40. Hours constituting a day's work, 10; sex, males, 40; wages paid to males, maximum, $3 50; minimum, $1 75; average, $2 50; without board.
7. How many bakers in the whole township. 2. Hours constituting a day's work, 14; wages paid to males, $2 50; without board.

8. How many brewers in the whole township. 2. Hours constituting a day's work, 14; wages paid to males, $2 50; without board.
9. How many blacksmiths in the whole township. 9. Hours constituting a day's work, 10; wages paid to males, $3; without board.
17. How many box (wood, packing) makers in the whole township. 1. Wages paid to males, $2; without board.
21. How many carpenters or joiners in the whole county (or township). 25. Wages paid to males, $2 50; without board.
23. How many carriage and wagon-makers in the whole county (or township). 8. Wages paid to males, $2 50; without board.
26. How many cigar-makers in the whole county (or township). 1. Wages paid to males, $1 50; without board.
51. How many plumbers in the whole township. 5. Hours constituting a day's work, 10; wages paid, $3.
54. How many saddlers and harness-makers in the whole township. 5. Hours constituting a day's work, 10; wages paid, $3.
56. How many salt-makers in the whole township. 30. Hours constituting a day's work, 12; wages paid, $1.
60. How many soda works employés in the whole county (or township). 2. Hours constituting a day's work, 10; wages paid to males, $1 50.
61. How many stone-cutters in the whole county (or township). 3. Hours constituting a day's work, 10; wages paid to males, $2.
62. How many tailors in the whole county (or township). 3. Hours constituting a day's work, 10; wages paid to males, $2.
64. How many tinsmiths in the whole county (or township). 7. Hours constituting a day's work, 10; wages paid to males. $2 50.
65. How many upholsterers in the whole county (or township). 2. Hours constituting a day's work, 10; wages paid to males, $2 50.
66. How many wheelwrights in the whole county (or township). 4. Hours constituting a day's work, 10; wages paid to males, $3.

FORM NO. 3. RELATING TO MINES AND MINERS (CHINESE EXCLUDED).

27. How many sandstone quarries are in your county (or township). 2.
28. How many sandstone miners are in your county (or township). 5.

FORM NO. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

1. How many miles of steam railroads in operation are in your county. 17.
2. How many employés of all kinds on above are in your county. 6.
14. How many agents, railroad and express, in your county. 8.
15. How many men are engaged in express companies in your county. 4.

FORM 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

4. How many barbers are employed in your township. 8. Males, 8; hours constituting a day's work, 14; wages paid to males, average, $2; without board.
16. How many dress-makers in your township. 12.
18. How many engineers (civil) in your town. 2.
19. How many engineers (stationary engines) in your county (or town). 4.
24. How many journalistic editors in your county (or town). 3.
27. How many hostlers in your county (or town). 6.
31. How many milliners in your town. 5.
32. How many painters (house) in your town. 6. Males, 6. Hours constituting a day's work, 10; wages paid to males, $2 50; without board.
34. How many plasterers employed in your county. 2.
35. How many printers employed in your county. 6.
37. How many school teachers are employed in your conuty. 23. Males, 5; females, 18. Hours constituting a day's work; maximum 7, minimum 6, average 6½; wages paid to males, maximum, $125, minimum, $65, average, $95; without board. Wages paid to females, maximum, $85, minimum, $50, average, $70.
42. How many waiters (restaurant, hotel, etc.,) are employed in your county. 2.

FORM NO. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county (or township). $3,673,915.
2. What is the total value of all buildings in the towns of your county (or township). $277,950.
6. Are any trade unions in your county. No.
9. How are the sanitary conditions of the workshops of mechanics and manufacturers. Good.
10. How are the sanitary conditions of the dwellings of the wage-workers. Good.
12. What is the cost of rent of dwellings generally occupied by the wage-workers. $8 to $12.
14. What is the cost of food or board per month. $4 to $5.

15. What is the cost of fuel. Wood, $7 50; coal, $10 to $12.
24. How many corporations (local) are in your township. Two incorporated towns.

FORM No. 7. RELATING TO CHINESE (EXCLUSIVELY).

1. How many Chinese are in your county (or township.) Males, 450 part of the year.
2. What are their conditions. Same as all Chinamen here. Very good for Chinamen.
3. What are their social habits. Exclusive.
4. What are their sanitary habits. Fair for Chinese.
5. How many of them are married. Do not know.
6. How many of them are employed. Nearly all.
7. How many of them are domestic servants. About 35.
8. What wages are paid domestic servants per week. $4; per month, $15, with board.
9. How many of them are cooks. Those enumerated in No. 7 (domestics) are cooks.
13. How many Chinese laundries are in your township. 6.
14. How many Chinese do they employ in your county (or township). About 15.
15. How many Chinese cultivate the soil in your county (or township). 350 or 400; help, harvest, fruit, grain, etc.
16. What wages are paid them per month without board. $20 to $25.
23. How much do they expend for rent either per head or collectively per month. Not much.
25. What percentage of the food are home products. Less than 50 per cent.
29. What percentage of the clothing is imported. About 75 per cent.
30. How much of their yearly earnings are sent out of the country. Probably 60 per cent.
32. To what extent does their employment come in competition with the white industrial classes. Weeding vegetables; picking currants and other fruits; they generally do such work cheaper and more satisfactorily than white men do.

ALPINE COUNTY.

Statistical Statement made by Daniel Stalker, Assessor of Alpine County.

FORM No. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county contain. 100,000.
2. How many acres of land (exclusive of town lots) are under cultivation. 20,310.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 70,000.
10. How many ranch owners. 41.
11. How many have from three to ten acres. None.
12. How many have from ten to twenty-five acres. 3.
13. How many have from twenty-five to fifty acres. None.
15. How many have from one hundred to two hundred acres. 30.
16. How many have from two hundred and fifty to five hundred acres. 3.
17. How many have from five hundred to one thousand acres. None.
18. How many have from one thousand to two thousand five hundred acres. None.
19. How many have from two thousand five hundred to five thousand acres. None.
20. How many have five thousand acres and over. 3.
21. How many ranches are worked by owners. 40.
22. How many ranches are worked in shares between owner and renter. None.
23. How many ranches are worked in shares between owner and laborers. None.
24. How many ranches are rented. None.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county contain. 200.

Relating to Farm Hands and Road Laborers.

42. What are the maximum wages paid (including board) per month. $30.

What are the wages paid to road laborers in your county (or township). $2.

FORM No. 3. RELATING TO MINES AND MINERS (CHINESE EXCLUDED).

8. How many gold quartz mines are in your county (or township). 3.
9. How many gold hydraulic mines are in your county (or township). 9.
11. How many silver mines are in your county (or township). 3.

FORM No. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

1. How many miles of steam railroads in operation are in your county. 9.
2. How many employés of all kinds on above are in your county. 50.
4. How many men are employed thereon in your county. 40.
11. How many stage drivers in your county. 1.
12. How many teamsters hauling, etc., in your county. 9.
24. How many cooks thereon in your county. 6.

FORM NO. 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

19. How many engineers (stationary engines) in your county (or town). 1.
20. How many engineers (mining) in your county (or town). 9.
24. How many journalistic editors in your county (or town). 1.
37. How many school teachers are employed in your county. Males, 4.
38. How many seamstresses are employed in your county. Females, 9.

FORM NO. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county (or township). 228,607.
6. Are any trade unions in your county. None.
14. What is the cost of food or board per month. $30.
15. What is the cost of fuel? Wood, $4.

FORM NO. 7. RELATING TO CHINESE (EXCLUSIVELY).

1. How many Chinese in your county (or township)? Males, 5.
6. How many of them are employed. 5.
9. How many of them are cooks. 5.
10. What wages are paid to them per month. $20, with board.
17. How many Chinese miners are in your county (or township). None.

AMADOR COUNTY.

Statistical Statement made by the Assessor of Amador County.

FORM NO. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county contain. 334,740.
2. How many acres of land (exclusive of town lots) are under cultivation. 40,000.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 250,000.
4. How many acres of land (exclusive of town lots) are timber land. 100,000.
5. How many acres of land (exclusive of town lots) are open for preëmption. 100,000.
6. What is the maximum price per acre (exclusive of town lots). $100.
7. What is the minimum price per acre (exclusive of town lots). $1 25.
8. What is the average price per acre (exclusive of town lots). $8.
9. How many ranches are in your county. 600.
10. How many ranch owners. 400.
11. How many have from three to ten acres. 50.
12. How many have from ten to twenty-five acres. 50.
13. How many have from twenty-five to fifty acres. 75.
14. How many have from fifty to one hundred acres. 150.
15. How many have from one hundred to two hundred and fifty acres. 300.
16. How many have from two hundred and fifty to five hundred acres. 100.
17. How many have from five hundred to one thousand acres. 30.
18. How many have from one thousand to two thousand five hundred acres. 10.
19. How many have from two thousand five hundred to five thousand acres. 4.
20. How many have five thousand acres and over. 2.
21. How many ranches are worked by owners. All of them.
22. How many ranches are worked in shares between owner and renter. None.
24. How many ranches are rented. Quite a number, but cannot tell.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county (or township) contain. 1,200.
29. What is their value. $450,000.
30. How many miles of fences are in your county (or township). 3,000.
31. What is their cost per mile. $300.
32. What is the value of all the agricultural implements in your county (or township). $20,000.

Relating to Farm Hands and Road Laborers.

42. What are the maximum wages paid laborers (including board) per month. $75.
43. What are the minimum wages paid (including board) per month. $10.
44. What are average wages paid (including board) per month. $25.
45. What industry of agriculture pays the maximum. Mining.
46. What industry of agriculture pays the minimum. For house servants.
47. How many months in the year are laborers generally employed. 12.
48. When unemployed in agriculture what industry do they pursue to gain a livelihood. Job around.
49. What are the maximum hours of labor per diem. 12.
50. What are the minimum hours of labor per diem. 8.

51. What are the average hours of labor per diem. 10.
52. Are those working over the regular hours constituting a day's work, paid extra. No; certain laborers work over hours; they are paid accordingly.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Yes.
57. What is the road laborer's condition in general; mentally. Average.
68. In what condition are the roads in your county (railroads excluded). Bad.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. Yes; quit dissipating, adopt regular habits, and demand employment.
70. How are the sanitary conditions of the lands in your county. Good.

FORM NO. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

8. How many brewers in the whole county. 5.
9. How many blacksmiths in the whole county. 100.
10. How many boiler-makers in the whole county. 2.
11. How many brass molders in the whole county (or township). 2.
21. How many carpenters and joiners in the whole county. 100.
23. How many carriage and wagon makers in the whole county. 15.
26. How many cigar-makers in the whole county. 2.
39. How many iron molders in the whole county. 2.
42. How many employés in limekilns in the whole county. 4.
46. How many millers in the whole county. 3.
47. How many pattern-makers in the whole county. 10.
49. How many potters in the whole county. 1.
54. How many saddlers and harness-makers in the whole county. 6.
59. How many shoe-makers in the whole county. 25.
60. How many soda works employés in the whole county. 4.
61. How many stone-cutters in the whole county. 10.
62. How many tailors in the whole county. 2.
64. How many tinsmiths in the whole county. 5.
66. How many wheelwrights in the whole county. 25.

FORM NO. 3. RELATING TO MINES AND MINERS (CHINESE EXCLUDED).

1. How many mines are in your county, 50. Number of miners, 1,200. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Number of months employed in the year, 12.
3. How many coal mines are in your county. 2.
4. How many coal miners are in your county. 40.
5. How many gold placer mines are in your county. 30.
6. How many gold placer miners are in your county. 200.
7. How many gold quartz mines are in your county. 15.
8. How many gold quartz miners are in your county. 1,000.
9. How many gold hydraulic mines are in your county. 5.
10. How many gold hydraulic miners are in your county. 50.
13. How many gravel mines are in your county. 1.
14. How many gravel miners are in your county. 40.
17. How many marble quarries are in your county. 4.
18. How many marble miners are in your county. 1.

FORM NO. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

1. How many miles of steam railroads in operation are in your county. 8.
2. How many employés of all kinds on above are in your county. 1.
11. How many stage drivers in your county. 6.
12. How many teamsters hauling, etc., in your county. 50.
15. How many men are engaged in express companies in your county. 6.

FORM NO. 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

1. How many auctioneers are employed in your county. 1.
3. How many assayers and chemists are employed in your county. 4.
4. How many barbers are employed in your county. 16.
5. How many bookkeepers in all departments in your county. 40.
10. How many clerks employed in general merchandising in your county. 75.
13. How many dentists are employed in your county. 4.
16. How many dress and cloak makers in your county. 40.
30. How many lumbermen in your county (or town). 25.
31. How many milliners in your county (or town). 12.
32. How many painters (house) in your county (or town). 15.
34. How many plasterers are employed in your county. 5.
35. How many printers are employed in your county. 8.

36. How many photographers are employed in your county. 4.
37. How many school teachers are employed in your county. 45.
38. How many seamstresses are employed in your county. 100.
40. How many telegraph operators are employed in your county. 12.
41. How many telegraph messenger boys are employed in your county. 2.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. 20.
43. How many watch-makers are employed in your county. 4.

FORM NO. 6. MISCELLANEOUS.

1. What is the total value of lands and town lots in your county (or township). $2,600,000.
2. What is the total value of all the buildings in the towns of your county (or township). $500,000.
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county (or township). None.
6. Are any trade unions in your county. None.

FORM NO. 7. RELATING TO CHINESE (EXCLUSIVELY).

1. How many Chinese are in your county. Males, 2,000; females, 75.
2. What are their conditions. Good.
3. What are their social habits. Like all Chinamen.
4. What are their sanitary habits. Average.
7. How many of them are domestic servants. Perhaps, 100.
8. What wages are paid to domestic servants. Per month, $20, with board.
9. How many of them are cooks. Perhaps, 50.
13. How many Chinese laundries are in your county. 20.
14. How many Chinese do they employ in your county. 75.
15. How many Chinese cultivate the soil in your county. 100.
17. How many Chinese miners are in your county. 1,000.
32. To what extent does their employment come in competition with the white industrial classes. 10 per cent.

BUTTE COUNTY.

Statistical Statement made by W. S. B. Wilson, Assessor of Butte County.

FORM NO. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county contain. 2,050,310.
2. How many acres of land (exclusive of town lots) are under cultivation. 96,111.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. Don't know.
4. How many acres of land (exclusive of town lots) are timber land. 368,640.
5. How many acres of land (exclusive of town lots) are open for preëmption. Don't know.
6. What is the maximum price per acre (exclusive of town lots). $150.
7. What is the minimum price per acre (exclusive of town lots). $1.
8. What is the average price per acre (exclusive of town lots). $30 for farming lands.
69. Can you suggest anything that will ameliorate the condition of the farm and road laborers and accrue to their benefit. Exclude the Chinese; give them good food and comfortable bedding.
70. How are the sanitary conditions of land in your county. Good.

FORM NO. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

1. How many miles of steam railroads in operation are in your county. 59.
11. How many stage drivers are in your county. 25.
15. How many men are engaged in express companies in your county. 9.

FORM NO. 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

1. How many auctioneers are employed in your county. 3.
4. How many barbers are employed in your county. 25.
7. How many clerks are employed in banking institutions in your county. 10.
9. How many clerks are employed in lawyers' offices in your county. 5.
11. How many clerks are employed in county and town governments in your county. 10.
13. How many dentists are employed in your county (or town). 6.
14. How many draughtsmen are employed in your county (or town). 2.
15. How many draymen are employed in your county (or town). 8.
18. How many engineers (civil) in your county (or town). 4.
24. How many journalistic editors in your county (or town). 7.
35. How many printers are employed in your county. 20. Males, 18; females, 2.
36. How many photographers are employed in your county. 4. Males, 4.

37. How many school teachers are employed in your county. 98. Males, 31; females, 67. Hours constituting a day's work, maximum, 6; minimum, 4. Average number of months engaged per annum, $7\frac{7}{10}$. Wages paid to males, maximum, $130; minimum, $65; average, $80 50; without board. Wages paid to females, maximum, $80; minimum, $50; average, $64; without board.
40. How many telegraph operators are engaged in your county. 8. Males, 8.
41. How many telegraph messenger boys are employed in your county. 1.
43. How many watchmakers are employed in your county. 10. Males, 10.
44. How many well-borers (artesian) are employed in your county. 2.

FORM NO. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county (or township). $10,631,395.
6. Are there any trade unions in your county. No.
15. What is the cost of fuel. Wood, $6 per cord.
23. What suggestions can you make to ameliorate the condition of the wage worker. To drink less.

FORM NO. 7. RELATING TO CHINESE (EXCLUSIVELY).

32. To what extent does their employment come in competition with the white industrial classes. As house servants and cooks they crowd out all others, and furnish about one tenth of the common laborers.

FORM NO. 8. RELATING TO INMATES OF JAILS AND OTHER REFORMATORY INSTITUTIONS.

1. How many inmates are in your county jail and other reformatory institutions in your county. Males, 5; females, 1; Chinese, 1.
4. What are their conditions and sanitary habits. Good.
5. How many of the inmates are employed. 2.
6. To what extent does their employment come in competition with the labor of mechanics, artisans, and all other white laborers outside of reformatory institutions. As Janitor to county buildings.

COLUSA COUNTY.

Statistical Statement made by W. J. Ford, Assessor of Colusa County.

FORM NO. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county or township contain. 1,471,520.
2. How many acres of land (exclusive of town lots) are under cultivation. 500,000.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 270,000.
4. How many acres of land (exclusive of town lots) are timber land. 604,560.
5. How many acres of land (exclusive of town lots) are open for preëmption. 100,000.
6. What is the maximum price per acre (exclusive of town lots). $100.
7. What is the minimum price per acre (exclusive of town lots). $1 25.
8. What is the average price per acre (exclusive of town lots). $12.
9. How many ranches are in your county (or township). 1,100.
10. How many ranch owners. 1,150.
25. What is the maximum rent per acre. Land is rented in this county for one fourth of the crops.
27. What is the average rent per acre. One fourth of the produce.
29. What is their value. $915,854.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county (or township). Don't know.
69. Can you suggest anything that will ameliorate the condition of the farm and road laborers and accrue to their benefit. Cannot.
70. How are the sanitary conditions of the lands in your county. Good.

FORM NO. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

7. How many bakers in the whole county (or township). 5.
8. How many brewers in the whole county (or township). 2.
9. How many blacksmiths in the whole county (or township). 30.
13. How many brick-makers in the whole county (or township). 5.
21. How many carpenters and joiners in the whole county (or township). 50.
23. How many carriage and wagon makers in the whole county (or township). 20.
54. How many saddlers and harness-makers in the whole county (or township). 10.
57. How many sash, door, and blind makers in the whole county (or township). 1.

60. How many soda works employés in the whole county (or township). 2.
62. How many tailors in the whole county (or township). 6.
64. How many tinsmiths in the whole county (or township). 6.
66. How many wheelwrights in the whole county (or township). 6.

FORM NO. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

1. How many miles of steam railroads in operation are in your county. $61\frac{81}{100}$.
3. How many miles of unfinished steam railroads are in your county. 10.

FORM NO. 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

1. How many auctioneers are employed in your county. 2.
4. How many barbers are employed in your county. 25.
5. How many bookkeepers in all departments in your county. 25.
6. How many bricklayers in your county. 20.
7. How many clerks are employed in banking institutions in your county. 5.
10. How many clerks are employed in general merchandising in your county. 50.
11. How many clerks are employed in county and town governments in your county. 7.
13. How many dentists are employed in your county (or town). 3.
15. How many draymen are employed in your county (or town). 8.
16. How many dress and cloak makers in your county (or town). 10.
17. How many engravers in your county (or town). 1.
18. How many engineers (civil) in your county (or town). 2.
24. How many journalistic editors in your county (or town). 5.
31. How many milliners in your county (or town). 7.
32. How many painters (house) in your county (or town). 20.
34. How many plasterers are employed in your county. 4.
35. How many printers are employed in your county. 6.
36. How many photographers are employed in your county. 4.
37. How many school teachers are employed in your county. 80.
40. How many telegraph operators are employed in your county. 8.

FORM NO. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county (or township). $16,007,285.
2. What is the total value of all the buildings in the towns of your county (or township). $684,310.
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county (or township). None.
6. Are any trade unions in your county. No.
16. What is the cost of water for household purposes per month. $3.
17. What is the cost of water for irrigation purposes, $3.
23. What suggestions can you make to ameliorate their condition. None.
24. How many corporations (local) are in your county. 3.
25. Name them. Colusa County Bank, Bank of Willows, Colusa Railroad.
26. Name capital stock of each. Colusa County Bank, $500,000; Bank of Willows, $100,000; Colusa Railroad, $60,000.

FORM NO. 7. RELATING TO CHINESE (EXCLUSIVELY).

1. How many Chinese are in your county (or township). Males, 1,000; females, 25.
2. What are their conditions. Average with other Chinamen.
3. What are their social habits. As other Chinamen.
4. What are their sanitary habits. Bad.

FORM NO. 8. RELATING TO INMATES OF JAILS AND OTHER REFORMATORY INSTITUTIONS.

1. How many inmates are in your county jail and other reformatory institutions in your county. Males, 9.
4. What are their conditions and sanitary habits. Good.
7. To what extent does their employment come in competition with the labor of mechanics, artisans, and all other white laborers outside of reformatory institutions. To no extent.

DEL NORTE COUNTY.

Statistical Statement made by W. H. Woodbury, Assessor of Del Norte County.

FORM NO. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county or township contain. 99,187.
2. How many acres of land (exclusive of town lots) are under cultivation. 3,877.

3. How many acres of land (exclusive of town lots) are unfit for cultivation. 2,519.
4. How many acres of land (exclusive of town lots) are timber land. 72,791.
5. How many acres of land (exclusive of town lots) are open for preëmption. 10,000.
6. What is the maximum price per acre (exclusive of town lots). $30.
7. What is the minimum price per acre (exclusive of town lots). $5.
8. What is the average price per acre (exclusive of town lots). $10.
9. How many ranches are in your county (or township). 90.
10. How many ranch owners. 80.
13. How many have from twenty-five to fifty acres. 6.
14. How many have from fifty to one hundred acres. 5.
15. How many have from one hundred to two hundred and fifty acres. 25.
16. How many have from two hundred and fifty to five hundred acres. 42.
17. How many have from five hundred to one thousand acres. 10.
18. How many have from one thousand to two thousand five hundred acres. 2.
21. How many ranches are worked by owners. 84.
24. How many ranches are rented. 6.
25. What is the maximum rent per acre. Rented with cows at $18 per head.
26. What is the minimum rent per acre. $16.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county contain. 1,000.
30. How many miles of fences are in your county (or township). 50.
31. What is their cost per mile. $75.
32. What is the value of all the agricultural implements in your county (or township). $1,530.
33. How many labor-saving agricultural implements are in your county (or township). 38.
34. What is their value. $5,450.
36. What percentage of ranch cultivators in your county (or township) use labor-saving machines. All.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county (or township). 30.
42. What are the maximum wages paid (including board) per month. $40.
43. What are the minimum wages paid (including board) per month. $25.
44. What are the average wages paid (including board) per month. 30.
45. What industry of agriculture pays the maximum. Lumbering.
46. What industry of agriculture pays the minimum. Dairying.
47. How many months in the year are laborers generally employed. 8.
48. When unemployed in agriculture, what industry do they pursue to gain a livelihood. None. Most men employed work either on dairy ranches or in mills and logging camps.
49. What are the maximum hours of labor per diem. 11.
50. What are the minimum hours of labor per diem. 9.
51. What are the average hours of labor per diem. 10.
52. Are those working over the regular hours constituting a day's work, paid extra. Yes.
53. If so, how much per hour. 25 cents.
54. If from sickness laborers must abstain from work, are any deductions made from their wages. Yes.
55. How many road laborers are in your county (or township). None.
57. What is the laborer's condition in general. Morally, good; physically, good; mentally, good.
58. How many laborers (exclusive of Chinese) are in your county (or township) unemployed. None.
65. What are the causes of their idleness. (Please state everything you know about it.) Most are idle during the months of December, January, February, and part of November and March.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county (or township). None.
67. How do they obtain sustenance and clothing. Live on what they have earned.
68. In what condition are the roads in your county (railroads excluded). Fair.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. I can suggest nothing.
70. How are the sanitary conditions of the lands in your county. Good.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

1. How many asphaltum workers are employed in the whole county (or township). None.
7. How many bakers in the whole county (or township). 2, doing their own work.
9. How many blacksmiths in the whole county (or township). 4.
20. How many canneries (fish, fruit, etc.), employés in the whole county (or township). 30 men. Tide work; all Chinamen except boss.
21. How many carpenters and joiners in the whole county (or township). 20. Hours constituting a day's work, 10; males 20; wages paid to males, maximum, $4; minimum, $3; average, $3 50.

22. How many carpenters (ship) in the whole county (or township). 2. Hours constituting a day's work, 10; males, 1; wages paid to males, $4.
23. How many carriage and wagon makers in the whole county (or township). 2. Hours constituting a day's work, 10; males, 2; wages paid, $4.
27. How many confectioners in the whole county (or township). 1, doing his own work.
29. How many coopers in the whole county (or township). 6; each working for himself.
33. How many employés in dairies in the whole county (or township). 60. Hours constituting a day's work, 12; minimum, 8; average, 10. Wages paid, maximum, $30; minimum, $20; average, $15; with board.
46. How many millers in the whole county (or township). 1; works his own mill.
54. How many saddlers and harness-makers in the whole county (or township). 2; each works for himself.
59. How many shoe-makers in the whole county (or township). 4, doing their own work.
62. How many tailors in the whole county (or township). 3, doing their own work.
64. How many tinsmiths in the whole county (or township). 2, doing their own work.

Form No. 3. Relating to Mines and Miners (Chinese Excluded).

9. How many gold hydraulic mines are in your county (or township). 10. Hours constituting a day's work, 8; number of months employed in the year, 6; wages per day, maximum, $2 50; minimum, $2; average, $2 25; without board.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

11. How many stage drivers in your county. 3. Hours constituting an average day's work, 10; months engaged per annum, 12; wages paid, $35; with board.
12. How many teamsters hauling, etc., in your county. 10. Hours constituting an average day's work, 10; months engaged per annum, 12; wages paid, $35; with board.
13. How many draymen hauling, etc., in your county. 4. Hours constituting an average day's work, 10; months engaged per annum, 12; wages paid, $35; with board.
14. How many agents, railroad, stage, express, and steamboat, in your county. 1.

Form No. 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

4. How many barbers are employed in your county. 3. Each works for himself.
5. How many bookkeepers in all departments in your county. 10. Hours constituting a day's work, maximum, 10; minimum, 10; average, 10. Average number of months engaged per annum, 12. Wages paid to males, maximum, $100; minimum, $30; average, $50.
6. How many bricklayers in your county. 2. Hours constituting a day's work, 10. Average number of months engaged per annum, 5. Wages paid, $4.
10. How many clerks employed in general merchandising in your county. 10. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $40; minimum, $30; average, $35; with board.
11. How many clerks are employed in county and town governments in your county. 2. Hours constituting a day's work, 8. Average number of months engaged per annum, 8. Wages paid, maximum, $150; minimum, $25.
13. How many dentists are employed in your county (or town). 1.
15. How many draymen are employed in your county (or town). 4; work for themselves.
16. How many dress and cloak makers in your county (or town). 6; work for themselves.
18. How many engineers (civil) in your county (or town). 3.
19. How many engineers (stationary engines) in your county (or town). 4. Hours constituting a day's work, maximum, 11; minimum, 11; average, 11. Average number of months engaged per annum, 9. Wages paid, maximum, $75; with board.
24. How many journalistic editors in your county (or town). 1.
27. How many hostlers in your county (or town). 6.
30. How many lumbermen in your county (or town). 200. Hours per day, 11; number of months engaged, 8; wages paid, maximum, $75; minimum, $25; average, $40; with board.
32. How many painters (house) in your county (or town). 3, each for himself.
34. How many plasterers are employed in your county. 2, each for himself.
35. How many printers are employed in your county. 1. Wages paid, $2 50 per day.
37. How many school teachers are employed in your county. 15. Males, 3; females, 12; hours per day, 6; number of months engaged, 8; wages paid, maximum, $85; minimum, $40; average, $60; without board.
38. How many seamstresses are employed in your county. 20, males.
39. How many servants (domestic) are employed in your county. 10, males; wages paid, maximum, $20; minimum, $10; average, $15.
43. How many watchmakers are employed in your county. 3, each for himself.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county (or township). $505,105.
2. What is the total value of all the buildings in the towns of your county (or townsdip). $170,803.
3. What is the total value of all the machineries used for mechanical and manufacturing purposes. $5,450.
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county (or township). None at all.
6. Are any trade unions in your county. No.
10. How are the sanitary conditions of the dwellings of the wage workers. Good.
11. What percentage of dwellings are owned by them. Very few.
12. What is the cost of rent of dwellings generally occupied by the wage workers. From $3 to $10 per month.
14. What is the cost of food or board per month. From $10 to $25.
15. What is the cost of fuel. Wood, $2 50 to $5 per cord.
16. What is the cost of water for household purposes per month. Nothing.
18. How many poor people live in your county (or township). Males, 3; females, 2.
19. Their ages. Average, from 60 to 85 years.
20. The cause. Old age. Nationality, American.
21. How many rooms do they occupy. County provides for them.
22. What are their conditions. Sanitary, fair; morally, good.
23. What suggestions can you make to ameliorate their condition. Cannot suggest anything. They have all resided in the county for thirty years, and will be cared for as long as they live.
24. How many corporations (local) are in your county. 3.
25. Name them. Elk River Mill Company, Crescent City Mill and Transportation Company, Del Norte Commercial Company.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county (or township). Males, 300; females, 20.
2. What are their condition. Fair.
3. What are their social habits. Gambling and opium smoking.
4. What are their sanitary habits. Very bad.
5. How many of them are married. 2.
6. How many of them are employed. 200.
7. How many of them are domestic servants. 25.
8. What wages are paid domestic servants. $20 per month; with board.
11. How many are laundrymen. 10; each for himself.
14. How many Chinese do they employ in your county (or township). For 8 months about 300.
15. How many Chinese cultivate the soil in your county (or township). None.
16. What wages are paid them per month, with board. From $10 to $30.
17. How many Chinese miners are in your county (or township). 320.
19. How many of them are employed in manufactures of all kinds. None.
20. Name the various industries and number employed in each of them. They work at mining, in mills, logging camps, and some on dairy ranches.
21. What are the wages paid them in each of the industries employed. From $10 to $30.
23. How much do they expend for rent, either per head or collectively, per month. About $1.
24. How much do they expend for food, per head or collectively, per month. Hard to tell.
25. What percentage of the food are home products. Very little.
26. What percentage of the food are imported from foreign countries. Very near all.
28. What percentage of the clothing is of American manufacture. 5.
29. What percentage of the clothing is imported. 95.
30. How much of their yearly earnings are sent out of the country. 80 per cent.
32. To what extent does their employment come in competition with the white industrial classes. The employment of Chinese undoubtedly deprives many young men of the chances for work, as well as many girls from doing housework.

EL DORADO COUNTY.

Statistical Statement made by E. F. M. Mortensen, Assessor of El Dorado County.

Form No. 1. Relating to Agriculture.

1. How many acres of land (exclusive of town lots) does your county or township contain. 1,200,000.
2. How many acres of land (exclusive of town lots) are under cultivation. 20,000.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 200,000.
4. How many acres of land (exclusive of town lots) are timber land. 600,000.

5. How many acres of land (exclusive of town lots) are open for preëmption. 375,000.
6. What is the maximum price per acre (exclusive of town lots). $20.
7. What is the minimum price per acre (exclusive of town lots). $2 50.
8. What is the average price per acre (exclusive of town lots). $3 50.
9. How many ranches are in your county (or township). 1,200.
10. How many ranch owners. 1,200.
11. How many have from three to ten acres. 40.
12. How many have from ten to forty acres. 105.
13. How many have from forty to sixty acres. 92.
14. How many have from sixty to one hundred acres. 180.
15. How many have from one hundred to one hundred and sixty acres. 150.
16. How many have from one hundred and sixty acres to two hundred and forty acres. 340.
17. How many have from two hundred and forty to three hundred and twenty acres. 75.
18. How many have from three hundred and twenty to four hundred acres. 80.
19. How many have from four hundred to six hundred and forty acres. 150.

How many have from six hundred and forty to one thousand acres. 15.

20. How many have five thousand acres and over. 3.
21. How many ranches are worked by owners. All.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county contain. About 4,500.
29. What is their value. About $410,000.
32. What is the value of all the agricultural implements in your county. $20,000.
36. What percentage of ranch cultivators in your county use labor-saving machines. 25.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county. About 550.
38. What are their ages. 15 to 60 and over.
40. How many of the laborers are females. None.
42. What are the maximum wages paid (including board) per month. $30.
43. What are the minimum wages paid (including board) per month. $15.
44. What are the average wages paid (including board) per month. $22 50.
45. What industry of agriculture pays the maximum. Grapes and fruit.
46. What industry of agriculture pays the minimum. Hay.
47. How many months in the year are laborers generally employed. 5.
48. When unemployed in agriculture what industry do they pursue to gain a livelihood. Mining and wood chopping.
49. What are the maximum hours of labor per diem. 12.
50. What are the minimum hours of labor per diem. 10.
51. What are the average hours of labor per diem. 11.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Not unless of long duration.
55. How many road laborers are in your county (or township). None.
57. What is the laborer's condition in general. Morally, good; physically, good; mentally, good.
58. How many laborers (exclusive of Chinese) are in your county (or township) unemployed. Don't know.
65. What are the causes of their idleness. (Please state everything you know about it.) Not many unemployed; some tramps, especially in harvest.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county (or township). Bring in capital and run ditches along the divides.
68. In what condition are the roads in your county (railroads excluded). Good.
70. How are the sanitary conditions of the lands in your county. Generally good.

FORM NO. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

7. How many bakers in the whole county (or township). 3.
8. How many brewers in the whole county (or township). 3.
9. How many blacksmiths in the whole county (or township). 20.
16. How many box (cigar) makers in the whole county (or township). 2.
21. How many carpenters and joiners in the whole county (or township). 40. Wages paid, maximum, $4; minimum, $3; average, $3 50; without board.
23. How many carriage and wagon makers in the whole county (or township). 6.
27. How many confectioners in the whole county (or township). 1.
29. How many coopers in the whole county (or township). 3.
33. How many employés in dairies in the whole county (or township). 110. Hours constituting an average day's work, 25.
37. How many gunsmiths in the whole county (or township). 2.
39. How many iron molders in the whole county (or township). 3. Hours constituting an average day's work, 5; without board.
42. How many employés in limekilns in the whole county (or township). 10. Hours constituting an average day's work. Don't know.

43. How many machinists in the whole county (or township). 10. Hours constituting an average day's work, 4.
46. How many millers in the whole county (or township). 3. Hours constituting an average day's work, 4; without board.
47. How many pattern makers in the whole county (or township). 2. Hours constituting an average day's work; without board.
51. How many plumbers in the whole county (or township). 2.
54. How many saddlers and harness-makers in the whole county (or township). 2.
59. How many shoe-makers in the whole county (or township). 11.
61. How many stone-cutters in the whole county (or township). 2.
62. How many tailors in the whole county (or township). 2.
64. How many tinsmiths in the whole county (or township). 3.
65. How many upholsterers in the whole county (or township). 1.
66. How many wheelwrights in the whole county (or township). 3.
67. How many wine manufacturers in the whole county (or township). 25.

Form No. 3. Relating to Mines and Miners (Chinese Excluded).

5. How many gold placer mines are in your county (or township). 45.
6. How many gold placer miners are in your county (or township). 100.
7. How many gold quartz mines are in your county (or township). 60.
8. How many gold quartz miners are in your county (or township). 600. Hours constituting an average day's work, 9; average wages per day, $2 50; without board.
13. How many gravel mines are in your county (or township). 50.
14. How many gravel miners are in your county (or township). 300. Average wages per day, $2 50; without board.
17. How many marble quarries are in your county (or township). 2; not worked.
25. How many limestone quarries are in your county (or township). 5.
27. How many sandstone quarries are in your county (or township). 1.
29. How many mines not enumerated above are in your county (or township). 100. Seam and pocket mines worked at times.
31. How many miners in your county are unemployed. Not many.
32. The causes. Lack of water, etc.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

1. How many miles of steam railroads in operation are in your county. 19.
2. How many employés of all kinds on above are in your county. 15.
11. How many stage drivers in your county. 10. Wages paid, average, $30; with board.
12. How many teamsters hauling, etc., in your county. 45. Wages paid, average, $40; without board.
13. How many draymen hauling, etc., in your county. 1.
14. How many agents, railroad, stage, express, and steamboats, in your county. 5.
15. How many men are engaged in express companies in your county. 4.

Form No. 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

1. How many auctioneers are employed in your county. 1.
3. How many assayers and chemists are employed in your county. 1.
4. How many barbers are employed in your county. 8.
5. How many bookkeepers in all departments in your county. 13. Wages paid, $75; without board.
6. How many bricklayers in your county. 2.
10. How many clerks employed in general merchandising in your county. Males, 25; females, 4. Wages paid, $40; without board.
12. How many cooks are employed in your county (or town). 8. Wages paid, $40; with board.
13. How many dentists are employed in your county (or town). 3.
16. How many dress and cloak makers in your county (or town). 6.
20. How many engineers (mining) in your county (or town). 20. Wages paid, $3; with board.
24. How many journalistic editors in your county (or town). 4.
27. How many hostlers in your county (or town). 7. Wages paid, $35; without board.
30. How many lumbermen in your county (or town). 50. Wages paid, $50; with board.
31. How many milliners in your county (or town). Females, 1.
32. How many painters (house) in your county (or town). 7.
34. How many plasterers are employed in your county. 3. Wages paid. Don't know.
36. How many photographers are employed in your county. 2.
37. How many school teachers are employed in your county. 50. Males, 15; females, 35. Hours constituting a day's work, 6. Average number months engaged per annum, 7. Wages paid to males, maximum, $100; minimum, $75; average, $87; without board. Wages paid to females, maximum, $75; minimum, $60; average, $70; without board.
39. How many servants (domestic) are employed in your county. 20; females. Wages paid to females, $15; with board.

40. How many telegraph operators are employed in your county. 7. Wages paid, on a percentage.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. Males, 2; females, 12. Wages paid to males, $25; females, $20; with board.
43. How many watch-makers are employed in your county. 3.
47. How many wood-cutters are employed in your county. 200; work by contract.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county (or township). $1,794,225.
2. What is the total value of all the buildings in the towns of your county (or township). $305,500.
3. What is the total value of all machineries used for mechanical and manufacturing purposes. $13,525.
15. What is the cost of fuel. Stovewood, $2 50 per cord.
16. What is the cost of water for household purposes per month. 75 cents.
17. What is the cost of water for irrigation purposes. 20 to 25 cents per inch.
24. How many corporations are in your county. 22.
25. Name them. Park Canal Company, El Dorado Ditch Company, California Ditch Company, Grangers' Coöperative Union, Lyon Mining Company, Placerville Gold Mining Company, Cedar Springs Mining Company, Linden Mining Company, Gopher Mining Company, Utah Mining Company, Mt. Pleasant Mining Company, Melton Mining Company, Eagle Mining Company, Eagle King Mining Company, Eureka Mining Company, Rosencranz Mining Company, Taylor Mining Company, Church Union Quicksilver Mining Company, Springfield Mining Company, Nashville Mining Company, Independent, and other mining companies, Placerville and Mud Springs Toll Road Company.
26. Name capital stock of each. Cannot.
27. Name cash capital invested in them. Impossible to tell.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county (or township). Males, 400; females, 50.
2. What are their conditions. Same as elsewhere.
7. How many of them are domestic servants. 10.
8. What wages are paid to domestic servants per month. $15; with board.
9. How many of them are cooks. 75.
10. What wages are paid to them per month. $30; with board.
13. How many Chinese laundries are in your county (or township). 8.
15. How many Chinese cultivate the soil in your county (or township). 25.
16. What wages are paid them per month. Work for themselves.
17. How many Chinese miners are in your county (or township). 200.
18. What wages do they earn. $1 22; without board.
20. Name the various industries and number employed in each of them. Farming, 175.
21. What are the wages paid them in each of the industries employed. 75 cents per day.
32. To what extent does their employment come in competition with the white industrial classes. They keep that number of whites out of employment.

Form No. 8. Relating to Inmates of Jails and Other Reformatory Institutions.

1. How many inmates are in your county jail and other reformatory institutions in your county. Males, 3.

HUMBOLDT COUNTY.

Statistical Statement made by G. H. Shaw, Assessor of Humboldt County.

Form No. 1. Relating to Agriculture.

1. How many acres of land (exclusive of town lots) does your county or township contain. 2,388,320.
2. How many acres of land (exclusive of town lots) are under cultivation. 18,000.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. About 2,000,000.
4. How many acres of land (exclusive of town lots) are timber land. About 967,680.
5. How many acres of land (exclusive of town lots) are open for preëmption. Very little that is desirable.
6. What is the maximum price per acre (exclusive of town lots). $200.
7. What is the minimum price per acre (exclusive of town lots). $3.
8. What is the average price per acre (exclusive of town lots). $12.
9. How many ranches are in your county (or township). I have no record of the number.
10. How many ranch owners. There are 4,065 real estate owners in the county.
21. How many ranches are worked by owners. Nearly all.

22. How many ranches are worked in shares between owner and renter. But few.
23. How many ranches are worked in shares between owner and laborers. But few.
24. How many ranches are rented. But few.
25. What is the maximum rent per acre. $12.
26. What is the minimum rent per acre. 50 cents.
27. What is the average rent per acre. $50.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county (or township) contain. Do not keep an account of the number of buildings. All improvements are assessed as a whole.
30. How many miles of fences are in your county (or township). Do not get this information.
31. What is their cost per mile. About $160.
32. What is the value of all the agricultural implements in your county (or township). $13,531.
33. How many labor-saving agricultural implements are in your county (or township). $30,000.
36. What percentage of ranch cultivators in your county (or township) use labor-saving machines. 75.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county (or township). As near as I can estimate about 750.
38. What are their ages. From 10 to 60.
39. How many are under fifteen years of age. 20 per cent.
40. How many of the laborers are females. None.
42. What are the maximum wages paid (including board) per month. $30.
43. What are the minimum wages paid (including board) per month. $10.
44. What are the average wages paid (including board) per month. $25.
45. What industry of agriculture pays the maximum. Grain.
46. What industry of agriculture pays the minimum. Vegetables.
47. How many months in the year are laborers generally employed. 6.
48. When unemployed in agriculture what industry do they pursue to gain a livelihood. Work in redwoods, making posts, and shakes, railroad ties, etc.
49. What are the maximum hours of labor per diem. 10.
50. What are the minimum hours of labor per diem. 8.
51. What are the average hours of labor per diem. All except road work, 10.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Yes.
55. How many road laborers are in your county (or township). As near as I can estimate, 90.
56. What is the wages paid to them. $2.
57. What is the laborer's condition in general. Morally, good; physically, good; mentally, good.
58. How many laborers (exclusive of Chinese) are in your county (or township) unemployed. Very few; I think all could get work at present.
68. In what condition are the roads of your county (railroads excluded). Good at present.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. Settle down and be contented, be economical, and become acquainted with all the surroundings, and not spend from time to time what they make trying to find a better place.
70. How are the sanitary conditions of the lands in your county. Good.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

7. How many bakers in the whole county (or township). 8. Hours constituting a day's work, 10. Wages paid, $50; with board.
8. How many brewers in the whole county (or township). 7. Hours constituting a day's work, 10. Wages paid, $60; without board.
9. How many blacksmiths in the whole county (or township.) 50. Hours constituting a day's work, 10. Wages paid, $75; without board.
10. How many boiler-makers in the whole county (or township). 3. Hours constituting a day's work, 10. Wages paid, $75; without board.
12. How many bookbinders in the whole county (or township). 1. Hours constituting a day's work, 10. Wages paid, $60; without board.
13. How many brick-makers in the whole county (or township). 50. Hours constituting a day's work, 10. Wages paid, $50; without board.
18. How many cabinet-makers in the whole county (or township). 10. Hours constituting a day's work, 10. Wages paid, $75; without board.
20. How many canneries (fish, fruit, etc.) employés in the whole county (or township). 30. Hours constituting a day's work, 10. Wages paid, $20; with board.
21. How many carpenters and joiners in the whole county (or township). 150. Hours constituting a day's work, 10. Wages paid, $90; without board.
22. How many carpenters (ship) in the whole county (or township). 30. Hours constituting a day's work, 10. Wages paid, $90; without board.

23. How many carriage and wagon makers in the whole county (or township). 10. Hours constituting a day's work, 10. Wages paid, $90; without board.
24. How many calkers (ship) in the whole county (or township). 10. Hours constituting a day's work, 10. Wages paid, $90; without board.
25. How many cement-makers in the whole county (or township). 8. Hours constituting a day's work, 10. Wages paid, $90; without board.
26. How many cigar-makers in the whole county (or township). 2. Hours constituting a day's work, 10. Wages paid, $50; without board.
27. How many confectioners in the whole county (or township). 2. Hours constituting a day's work, 10. Wages paid, $75; without board.
28. How many coffee and spice mills employés in the whole county (or township). 2. Hours constituting a day's work, 10. Wages paid, $50; without board.
29. How many coopers in the whole county (or township). 8. Hours constituting a day's work, 10. Wages paid, $60; without board.
33. How many employés in dairies in the whole county (or township). 100. Hours constituting a day's work, 12. Wages paid, $30; with board.
37. How many gunsmiths in the whole county (or township). 10. Hours constituting a day's work, 12. Wages paid, $60; with board.
39. How many iron molders in the whole county (or township). 5. Hours constituting a day's work, 10. Wages paid, 60; with board.
43. How many machinists in the whole couny (or township). 20. Hours constituting a day's work, 10. Wages paid, $90; with board.
44. How many marble-cutters in the whole county (or township). 3. Hours constituting a day's work, 10.
46. How many millers in the whole county (or township). 5. Hours constituting a day's work, 10. Wages paid, $60; with board.
54. How many saddlers and harness makers in the whole county (or township). 20. Hours constituting a day's work, 10. Wages paid, $60; with board.
57. How many sash, door, and blind makers in the whole county (or township). 10. Hours constituting a day's work, 10. Wages paid, $30; with board.
58. How many shingle-makers in the whole county (or township). 100. Hours constituting a day's work, 10. Wages paid, $30; with board.
59. How many shoe-makers in the whole county (or township). 30. Hours constituting a day's work, 10. Wages paid, $40; with board.
60. How many soda works employés in the whole county (or township). 7. Hours constituting a day's work, 10. Wages paid, $40; with board.
61. How many stone-cutters in the whole county (or township). 10. Hours constituting a day's work, 10. Wages paid, $50; with board.
62. How many tailors in the whole county (or township). 20. Hours constituting a day's work, 11. Wages paid, $50; with board.
63. How many tanners in the whole county (or township). 4. Hours constituting a day's work, 10. Wages paid, $30; with board.
64. How many tinsmiths in the whole county (or township). 10. Hours constituting a day's work, 10. Wages paid, $40; with board.
65. How many upholsterers in the whole county (or township). 8. Hours constituting a day's work, 10. Wages paid, $40; with board.
68. How many willow and woodware employés in the whole county (or township). 2. Hours constituting a day's work, 10. Wages paid, $40; with board.

Form No. 3. Relating to Mines and Miners (Chinese Excluded).

24. How many granite stone miners are in your county (or township). 1.
25. How many limestone quarries are in your county (or township). 1. Hours constituting a day's work, 8. Working for United States.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

1. How many miles of steam railroads in operation in your county. 53.
2. How many employés of all kinds on above are in your county. 40. Hours per day, 10. Average number of months engaged per annum, 10. Wages paid, maximum, $100; minimum, $30; average, $60; without board.
11. How many stage drivers in your county. 7. Hours per day, 12. Average number of months engaged per annum, 12. Wages paid, average $70; board.
12. How many teamsters hauling, etc., in your county. 50. Hours per day, 12. Average number of months engaged per annum, 6. Wages paid, $40; board.
13. How many draymen hauling, etc., in your county. 4. Hours per day, 12. Average number of months engaged per annum, 12. Wages paid, $50; board.
14. How many agents, railroad, stage, express, and steamboat, in your county. 20.
15. How many men are engaged in express companies in your county. 8.
16. How many steamboats and sailing vessels of all kinds in your county. 66.
17. How many captains thereon in your county. 66.
18. How many pilots thereon in your county. 3.
19. How many pursers thereon in your county. 3.
20. How many engineers thereon in your county. 10.
21. How many freight clerks thereon in your county. 20.
22. How many mates thereon in your county. 20.

24. How many cooks thereon in your county. 10.
25. How many firemen thereon in your county. 10.
26. How many sailors thereon in your county. 100.

Form No. 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

1. How many auctioneers are employed in your county. 2; work for themselves.
4. How many barbers are employed in your county. 20. Hours constituting a day's work, 10. Wages paid, $60; without board.
5. How many bookkeepers in all departments in your county. 75. Hours constituting a day's work, 10. Wages paid, maximum, $100; minimum, $30; average, $70; without board.
6. How many bricklayers in your county. 40. Hours constituting a day's work, 10. Wages paid, $60; without board.
7. How many clerks are employed in banking institutions in your county. 3. Hours constituting a day's work, 8. Wages paid, $100; without board.
10. How many clerks employed in general merchandising in your county. 100. Hours constituting a day's work, 10. Wages paid, maximum, $75; minimum, $20; average, $50; without board.
11. How many clerks are employed in county and town governments in your county. 3. Hours constituting a day's work, 10.
12. How many cooks are employed in your county (or town). 100. Hours constituting a day's work, 10. Wages paid, $60. They always get board.
13. How many dentists are employed in your county (or town). 7.
14. How many draughtsmen are employed in your county (or town). 1.
16. How many dress and cloak makers in your county (or town). 20. Hours constituting a day's work, 10 Wages paid, $30; without board.
17. How many engravers in your county (or town). 1.
18. How many engineers (civil) in your county (or town). 8.
19. How many engineers (stationary engines) in your county (or town). 25. Hours constituting a day's work, 10. Wages paid, $70; with board.
21. How many florists and gardeners in your county (or town). 2.
22. How many fishermen in your county (or town). 20.
23. How many glaziers in your county (or town). 10.
24. How many journalistic editors in your county (or town). 5.
25. How many journalistic reporters in your county (or town). 2.
26. How many hod carriers in your county (or town). 20. Wages paid, $60; without board.
27. How many hostlers in your county (or town). 30. Hours constituting a day's work, 10. Wages paid, $60; without board.
28. How many laundrymen in your county (or town.) 50. Males, 30; females, 20. Hours constituting a day's work, 10. Wages paid to males, $40; with board. Wages paid to females, $30; with board.
29. How many longshoremen in your county (or town). 20. Hours constituting a day's work, 10. Wages paid, $70; without board.
30. How many lumbermen in your county (or town). 1,000. Hours constituting a day's work, 10. Wages paid, maximum, $100; minimum, $20; average, $60; with board.
31. How many milliners in your county (or town). 10. Hours constituting a day's work, 10.
32. How many painters (house) in your county (or town). 20. Hours constituting a day's work, 10. Wages paid, $70; without board.
33. How many fresco painters are employed in your county . 2.
34. How many plasterers are employed in your county. 10.
35. How many printers are employed in your county. 25. Hours constituting a day's work, 10. Wages paid, $80; without board.
36. How many photographers are employed in your county. 5.
37. How many school teachers are employed in your county. 105. Hours constituting a day's work, 8. Wages paid to males, maximum, $100; minimum, $60; average, $70; without board.
38. How many seamstresses are employed in your county. 20. Hours constituting a day's work, 10. Wages paid, $30; without board.
39. How many servants (domestic) are employed in your county. 20.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county. $7,733,276.
2. What is the total value of all the buildings in the towns of your county. $1,627,742.
6. Are there any trade unions in your county. There is one organization here in Eureka.
7. Name them. The Knights of Labor.
8. What percentage of wage workers belong to them. Perhaps 20.
9. How are the sanitary conditions of the workshops of mechanics and manufacturers. Good.
10. How are the sanitary conditions of the dwellings of wage workers. Good.
11. What percentage of the dwellings are owned by them. 50.

12. What is the cost of rent of dwellings generally occupied by the wage workers. $6 to $12 per month.
13. What is the cost of rent of rooms generally occupied by the wage workers. $4 per month.
14. What is the cost of food or board per month. $20.
15. What is the cost of fuel. Wood $1 per cord.
16. What is the cost of water for household purposes per month. $1 50.
23. What suggestions can you make to ameliorate their condition. The poor people of Humboldt County as a general rule find work enough to supply their wants; there are about 30 supported by the county at the hospital.
24. How many corporations (local) are in your county. 15.
25. Name them. Ferndale Business Association, capital stock $20.000, 15 per cent; Arcata and Mad River Railroad Company, capital stock. $300.000, 33 per cent; California Arms Company, capital stock $20,000, 40 per cent; Eureka Gas Company, capital stock $50,000, 30 per cent; Humboldt Lumber Mill Company, capital stock $150.000, 50 per cent; Eel River and Eureka Railroad Company, capital stock $1,200.000, 40 per cent; Eureka and Trinidad Railroad Company, capital stock $750,000, 30 per cent; Elk River Mill and Lumber Company, capital stock $30,000, 80 per cent; Humboldt Marine Railway Company, capital stock $40.000, 50 per cent; Eel River Valley Lumber Company, capital stock $150,000, 40 per cent; Milford Land and Lumber Company, capital stock $100,000, 50 per cent; Humboldt Logging Railway Company, capital stock $150,000; 50 per cent, Humboldt County Bank, capital stock $200,000, 100 per cent; Lincoln Mill Company, capital stock $20,000, 50 per cent; California Redwood Company, capital stock $10,000,000, 20 per cent; Bucksport and Elk River Railroad Company, capital stock $500,000, 60 per cent.
28. Total number of hands employed. 206; the California Redwood Company employed in 1884, 600 men, but are not operating this year; neither is the Humboldt Logging Railway or the Bucksport and Elk River Railroad Company.

FORM 7. RELATING TO CHINESE (EXCLUSIVELY).

1. How many Chinese are in your county (or township). About 250 males.
2. What are their conditions. There are no Chinese in Eureka.
3. What are their social habits. Are bad.
4. What are their sanitary habits. Bad.
6. How many of them are employed. They principally follow washing.
9. How many of them are cooks. 20.
10. What wages are paid to them per month. $25; with board.
11. How many laundrymen. 50.
12. What wages do they earn per month. $25; without board.
17. How many Chinese miners are in your county (or township). 50; work for themselves.

INYO COUNTY.

Statistical Statement made by John C. Irwin, Assessor of Inyo County.

FORM NO. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county or township contain. 768,000.
2. How many acres of land (exclusive of town lots) are under cultivation. About 30,000.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. About 600,000.
4. How many acres of land (exclusive of town lots) are timber land. 20.
5. How many acres of land (exclusive of town lots) are open for preëmption. 100,000.
8. What is the average price per acre (exclusive of town lots). $5.
9. How many ranches are in your county (or township). 500.
10. How many ranch owners. 350.
11. How many have from three to ten acres. None.
12. How many have from ten to twenty-five acres. 15.
13. How many have from twenty-five to fifty acres. 5.
14. How many have from fifty to one hundred acres. 15.
15. How many have from one hundred to two hundred and fifty acres. 310.
17. How many have from five hundred to one thousand acres. 10.
22. How many ranches are worked in shares between owner and renter. 350.
23. How many ranches are worked in shares between owner and laborers. 100.
24. How many ranches are rented. 50.
27. What is the average rent per acre. All rent on shares.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county (or township) contain. 600.
29. What is their value. $25,000.
30. How many miles of fences are in your county (or township). 100.
31. What is their cost per mile. $200.

32. What is the value of all the agricultural implements in your county (or township). $75,000.
33. How many labor-saving agricultural implements are in your county (or township). 150.
34. What is their value. $50,000.
36. What percentage of ranch cultivators in your county (or township) use labor-saving machines. 75.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county (or township). About 600.
38. What are their ages. From 10 to 60.
39. How many are under fifteen years of age. 75.
40. How many of the laborers are females. None.
42. What are the maximum wages paid (including board) per month. $30.
44. What are the average wages paid (including board) per month. $30.
47. How many months in the year are laborers generally employed. 8.
48. When unemployed in agriculture what industry do they pursue to gain a livelihood. Whatever they can get to do.
49. What are the maximum hours of labor per diem. 12.
51. What are the average hours of labor per diem. 12.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Sometimes.
55. How many road laborers are in your county (or township). 10.
56. What is the wages paid to them. $2 per day.
57. What is the laborer's condition in general. Morally, good; physically, good; mentally, good.
58. How many laborers (exclusive of Chinese) are in your county (or township) unemployed. 150.
59. How many of the unemployed are native Americans. Don't know.
62. What are their ages. From 25 to 65.
63. How many under fifteen. None.
65. What are the causes of their idleness. (Please state everything you know about it.) Some can't get work and some won't work.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county (or township). By digging and big ditch and mining.
67. How do they obtain sustenance and clothing. On credit.
68. In what condition are the roads in your county (railroads excluded.) Good.
70. How are the sanitary conditions of the lands in your county. Very good; the best on the coast.

Form 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

8. How many brewers in the whole county (or township). 80.
9. How many blacksmiths in the whole county (or township). 20.
18. How many cabinet-makers in the whole county (or township). 2.
21. How many carpenters and joiners in the whole county (or township). 15.
23. How many carriage and wagon-makers in the whole county (or township). 4.
33. How many employés in dairies in the whole county (or township). 5.
43. How many machinists in the whole county (or township). 10.
45. How many employés in watch factories in the whole county (or township). 2.
46. How many millers in the whole county. 3.
54. How many saddlers and harness-makers in the whole county (or township). 1.
58. How many shingle-makers in the whole county (or township). 1.
59. How many shoe-makers in the whole county (or township). 2.
62. How many tailors in the whole county (or township). 2.
64. How many tinsmiths in the whole county (or township). 2.
65. How many upholsterers in the whole county (or township). 1.
66. How many wheelwrights in the whole county (or township). 5.
67. How many wine manufacturers in the whole county (or township). 2.

Form No. 3. Relating to Mines and Miners (Chinese Excluded).

5. How many gold placer mines are in your county (or township). 1.
6. How many gold placer miners are in your county (or township). 2.
7. How many gold quartz mines are in your county (or township). 100.
8. How many gold quartz miners are in your county (or township). 200.
11. How many silver mines are in your county (or township). 250.
12. How many silver miners are in your county (or township). 300.
17. How many marble quarries in your county (or township). 1.
18. How many marble miners in your county (or township). 3.
28. How many sandstone miners in your county (or township). 450. Number of men employed in the year, 12. Wages per day, $3.
31. How many miners in your county are unemployed. About 400.
32. The causes. No money to work with.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

1. How many miles of steam railroads operated in your county. 74½. Number of men, 16. Average hours per day, 10. Average number of months engaged per annum, 12.
2. How many employés of all kinds on above are in your county. 16.
11. How many stage drivers in your county. 4.
12. How many teamsters hauling, etc., in your county. 25.
14. How many agents, railroad, stage, express, and steamboat, in your county. 9.
15. How many men are engaged in express companies in your county. 5.

Form No. 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

3. How many assayers and chemists are employed in your county. 10.
4. How many barbers are employed in your county. 4.
9. How many clerks are employed in lawyers' offices in your county. 2.
10. How many clerks are employed in general merchandising in your county. 6.
11. How many clerks are employed in county or town governments in your county. 3.
12. How many cooks are employed in your county (or town). 40.
13. How many dentists are employed in your county (or town). 2.
18. How many engineers (civil) in your county (or town). 3.
19. How many engineers (stationary engines) in your county (or town). 12.
20. How many engineers (mining) in your county (or town.) 6.
21. How many florists and gardeners in your county (or town). 20.
24. How many journalistic editors in your county (or town.) 2.
25. How many journalistic reporters in your county (or town). 2.
27. How many hostlers in your county (or town). 8.
28. How many laundrymen in your county (or town). 8.
30. How many lumbermen in your county (or town). 2.
31. How many milliners in your county (or town). 1.
32. How many painters (house) in your county (or town) 5.
35. How many printers employed in your county. 4.
37. How many school teachers are employed in your county. 12.
38. How many seamstresses are employed in your county. 30.
39. How many servants (domestic) are employed in your county. 50.
40. How many telegraph operators are employed in your county. 3.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. 5.
43. How many watch-makers are employed in your county. 2.
47. How many wood-cutters are employed in your county. 20.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county (or township). $600,000.
2. What is the total value of all the buildings in the towns of your county (or township). $115,000.
3. What is the total value of all the machineries used for mechanical manufacturing purposes. $75,000.
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county (or township). None.
6. Are any trade unions in your county. No.
14. What is the cost of food or board per month. $30.
15. What is the cost of fuel. Wood, $8 per cord; coal, none.
18. How many poor people live in your county. None need be poor if they will work.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county (or township). Males, 50; females, 10.
2. What are their conditions. Medium fair.
3. What are their social habits. Not good.
4. What are their sanitary habits. Good.
5. How many of them are married. 1.
6. How many of them are employed. 40.
7. How many of them are domestic servants. 20.
8. What wages are paid to domestic servants per month. $20; with board.
9. How many of them are cooks. 20.
10. What wages are paid them per month. $25; with board.
11. How many of them are laundrymen. 10.
13. How many Chinese laundries are in your county (or township). 7.
14. How many Chinese do they employ in your county (or township). 10.
15. How many Chinese cultivate the soil in your county (or township). 5.
17. How many Chinese miners are in your county (or township). None.
23. How much do they expend for rent, either per head or collectively, per month. $50.
24. How much do they expend for food, per head or collectively, per month. $5.
27. How much do they expend for clothing per head each year. $20.
28. What percentage of the clothing is of American manufacture. 10.

32. To what extent does their employment come in competition with the white industrial classes. Very little, for there are none here to speak of, but cooks and laundrymen.

Form No. 8. Relating to Inmates of Jails and Other Reformatory Institutions.

1. How many inmates are in your county jail and other reformatory institutions in your county. 2.
2. What are their ages. 30 and 40.
3. What are their nationalities. Mexicans.
4. What are their conditions and sanitary habits. Good.
5. How many of the inmates are employed. None.

LASSEN COUNTY.

Statistical Statement made by N. L. Roll, Assessor of Lassen County.

Form No. 1. Relating to Agriculture.

1. How many acres of land (exclusive of town lots) does your county or township contain. 3,000,000.
2. How many acres of land (exclusive of town lots) are under cultivation. 200,000.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 1,000,000.
4. How many acres of land (exclusive of town lots) are timber land. 200,000.
5. How many acres of land (exclusive of town lots) are open for preëmption. 1,600,000.
8. What is the average price per acre (exclusive of town lots). $1 25.
11. How many have from three to ten acres. 20.
12. How many have from ten to twenty-five acres. 5.
13. How many have from twenty-five to fifty acres. 5.
14. How many have from fifty to one hundred acres. 10.
15. How many have from one hundred to two hundred and fifty acres. 100.
16. How many have from two hundred and fifty to five hundred acres. 150.
17. How many have from five hundred to one thousand acres. 50.
18. How many have from one thousand to two thousand five hundred acres. 20.
19. How many have from two thousand five hundred to five thousand acres. 20.
20. How many have five thousand acres and over. 3.
21. How many ranches are worked by owners. All.
22. How many ranches are worked in shares between owner and renter. 4.
23. How many ranches are worked in shares between owner and laborers. None.
24. How many ranches are rented. 10.
30. How many miles of fences are in your county (or township). 271,331.
34. What is the value of wagon and farm machinery. $70,520.
35. What is the value of work horses and mules. $158,250.
36. What percentage of ranch cultivators in your county (or township) use labor-saving machines. All.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county (or township). 600.
38. What are their ages. All ages, from 15 to 60.
39. How many are under fifteen years of age. None.
40. How many of the laborers are females. None.
42. What are the maximum wages paid (including board) per month. $35 per month to $2 per day.
44. What are the average wages paid (including board) per month. $35.
47. How many months in the year are laborers generally employed. About 8.
48. When unemployed in agriculture what industry do they pursue to gain a livelihood. Chop wood, hunt, and trap, or prospect for mines.
49. What are the maximum hours of labor per diem. Sun up to sun down.
50. What are the minimum hours of labor per diem. No fixed time here.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. No.
55. How many road laborers are in your county (or township). None.
56. What is the wages paid to them. Road tax, $1 25, for two days.
57. What is the laborer's condition in general. Morally, not generally speaking, physically, good; mentally, average.
58. How many laborers (exclusive of Chinese) are in your county (or township) unemployed. None.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county (or township). Ask for a job.
67. How do they obtain sustenance and clothing. Work for them.
68. In what condition are the roads in your county (railroads excluded). Good.

69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. Stop drinking poor whisky.
70. How are the sanitary conditions of the lands in your county. We don't have such things.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

1. How many asphaltum workers are employed in the whole county (or township). 1.
3. How many employés in agricultural implements in the whole county (or township). 5. Hours constituting a day's work, 10. Wages paid, $3.
8. How many brewers in the whole county (or township). 1.
9. How many blacksmiths in the whole county (or township). 8. Hours constituting a day's work, 10. Wages paid, $3.
18. How many cabinet-makers in the whole county (or township). 2.
21. How many carpenters or joiners in the whole county (or township). 100. Hours constituting a day's work, 10. Wages paid, $3.
23. How many carriage and wagon makers in the whole county (or township). 2.
29. How many coopers in the whole county (or township). 2.
33. How many employés in dairies in the whole county (or township). 100. Wages paid to males, $30; with board.
43. How many machinists in the whole county (or township). 2.
46. How many millers in the whole county (or township). 2.
54. How many saddlers and harness-makers in the whole county (or township). 2.
57. How many sash, door, and blind makers in the whole county (or township). 1.
59. How many shoe-makers in the whole county (or township). 1.
60. How many soda works employés in the whole county (or township). 1.
64. How many tinsmiths in the whole county (or township). 2. Hours constituting a day's work, 10. Wages paid, $3.
65. How many upholsterers in the whole county (or township). 1.
74. How do they manage to subsist. Hard work.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

1. How many miles of steam railroads in operation are in your county. 6.
2. How many employés of all kinds on above are in your county. 600.
3. How many miles of unfinished steam railroads are in your county. 4.
4. How many men are employed thereon in your county. 50.
9. How many miles of macadamized roads are in your county. 2.
10. How many men are engaged thereon in your county. 1.
12. How many teamsters hauling, etc., in your county. 25.
14. How many agents, railroad, stage, express, and steamboats in your county. 10.

Form No. 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

4. How many barbers are employed in your county. 2.
5. How many bookkeepers in all departments in your county. 20.
6. How many bricklayers in your county. 1.
9. How many clerks are employed in lawyers' offices in your county. 4.
10. How many clerks are employed in general merchandising in your county. 20.
13. How many dentists are employed in your county (or town). 2.
16. How many dress and cloak makers in your county (or town.) Females, 12.
18. How many engineers (civil) in your county (or town). 2.
19. How many engineers (stationary engines) in your county (or town). 10.
24. How many journalistic editors in your county (or town). 2.
27. How many hostlers in your county (or town). 20.
28. How many laundrymen in your county (or town). 4.
30. How many lumbermen in your county (or town). 20.
31. How many milliners in your county (or town). 2.
32. How many painters (house) in your county (or town). 2.
35. How many printers are employed in your county. 4.
36. How many photographers are employed in your county. 1.
37. How many school teachers are employed in your county. 20. Males, 10; females, 10.
38. How many seamstresses are employed in your county. 6.
42. How many waiters (restaurant, hotel, etc.,) are employed in your county. 10.
43. How many watch-makers are employed in your county. 2.
44. How many well-borers (artesian) are employed in your county. 1.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county (or township). $688,150.
2. What is the total value of all the buildings in the towns of your county (or township). $134,499.
13. What is the cost of rooms generally occupied by the wage workers. Not many rented.

14. What is the cost of food or board per month. $20.
15. What is the cost of fuel. Wood, $1 50 per cord.
16. What is the cost of water for household purposes per month. Some places free; others $2 per month.

FORM No. 8. RELATING TO INMATES OF JAILS AND OTHER REFORMATORY INSTITUTIONS.

1. How many inmates are in your county jail and other reformatory institutions in your county. Males, none; females, 1; on charge of murder.

MARIN COUNTY.

Statistical Statement made by William Vanderbilt, Assessor of Marin County.

FORM No. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county contain. 324,349.
2. How many acres of land (exclusive of town lots) are under cultivation. 11,650.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 300,000.
4. How many acres of land (exclusive of town lots) are timber land. 3,700.
5. How many acres of land (exclusive of town lots) are open for preëmption. None.
6. What is the maximum price per acre (exclusive of town lots). Do not know.
7. What is the minimum price per acre (exclusive of town lots). Do not know.
8. What is the average price per acre (exclusive of town lots). About $27.
27. What is the average rent per acre. About $2 50.
32. What is the value of all the agricultural implements in your county. Assessed value, about $7,500.

FORM No. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

1. How many miles of steam railroads in operation are in your county. 60.
3. How many miles of unfinished steam railroads are in your county. None.
5. How many miles of street railroads (horse-power) are in your county. None.

FORM No. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county (or township). Assessed value, $2,082,877.
6. Are any trade unions in your county. None.

FORM No. 7. RELATING TO CHINESE (EXCLUSIVELY).

1. How many Chinese are in your county (or township). About 350.
3. What are their social habits. Same as all Chinese.
5. How many of them are married. Very few.
6. How many of them are employed. All.
7. How many of them are domestic servants. About 100.
8. What wages are paid to domestic servants. Per month, $15; with board.
13. How many Chinese laundries are in your county (or township). 2.
20. Name the various industries and number employed in each of them. The most of the Chinese in this county outside of domestic servants are fishermen on the bay.
32. To what extent does their employment come in competition with the white industrial classes. The only extent is the domestic servants and a few that are employed a short time in digging potatoes.

FORM No. 8. RELATING TO INMATES OF JAILS AND OTHER REFORMATORY INSTITUTIONS.

1. How many inmates are in your county jail and other reformatory institutions in your county. Males, three at present; females, none; Chinese, none. The county is used almost exclusively for dairying purposes, and Chinese are not employed. All residents of this county that are laborers have plenty of employment.

MARIPOSA COUNTY.

Statistical Statement made by M. Newman, Assessor of Mariposa County.

FORM No. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county or township contain. Can't tell.
2. How many acres of land (exclusive of town lots) are under cultivation. About 10,000.

3. How many acres of land (exclusive of town lots) are unfit for cultivation. Impossible to tell. There are amongst the mountains many tracts of good land, and in the lower portions large tracts of grazing land.
4. How many acres of land (exclusive of town lots) are timber land. From 20,000 to 30,000 acres.
5. How many acres of land (exclusive of town lots) are open for preëmption. The United States Land Office can tell that.
6. What is the maximum price per acre (exclusive of town lots). Farming land from $3 to $20.
7. What is the minimum price per acre (exclusive of town lots). $1 25.
8. What is the average price per acre (exclusive of town lots). $2 50.
10. How many ranch owners. 767 persons assessed to land, inclusive preëmptors.
11. How many have from three to ten acres. 18.
12. How many have from ten to twenty-five acres. 19.
13. How many have from twenty-five to fifty acres. 24.
14. How many have from fifty to one hundred acres. 17.
15. How many have from one hundred to two hundred and fifty acres. 494.
16. How many have from two hundred and fifty to five hundred acres. 133.
17. How many have from five hundred to one thousand acres. 29.
18. How many have from one thousand to two thousand five hundred acres. 20.
19. How many have from two thousand five hundred to five thousand acres. 10.
20. How many have five thousand acres and over. 3.
21. How many ranches are worked by owners. Nearly all of them.
22. How many ranches are worked in shares between owner and renter. None that I know of.
23. How many ranches are worked in shares between owner and laborers. None that I know of.
24. How many ranches are rented. No regular renting of ranches here; sometimes grazing land is rented.
25. What is the maximum rent per acre. Grazing land rents from 10 cents to 25 cents per acre.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county (or township) contain. Can't tell.
29. What is their value. Total value of improvements, exclusive of improvements on town lots, $292,043.
30. How many miles of fences are in your county (or township). Can't tell.
31. What is their cost per mile. $50 to $500.
32. What is the value of all the agricultural implements in your county (or township.) $7,717.

Relating to Farm Hands and Road Laborers.

42. What are the maximum wages paid (including board) per month. $50.
43. What are the minimum wages paid (including board) per month. $20.
44. What are the average wages paid (including board) per month. $30.
47. How many months in the year are laborers generally employed. 3.
48. When unemployed in agriculture what industry do they pursue to gain a livelihood. There is no regular class of agricultural laborers in this county. When harvest time or plowing time, laborers that can get work, go at it; when not employed at that, they go at anything they can get to do, principally mining.
49. What are the maximum hours of labor per diem. 12.
50. What are the minimum hours of labor per diem. 8.
51. What are the average hours of labor per diem. 10.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. If sickness should be of any length of time, I presume time lost is deducted.
56. What is the wages paid to them. $1 to $2.
57. What is the laborer's condition in general. Morally, good; physically, healthy; mentally, intelligent.
65. What are the causes of their idleness. (Please state everything you know about it.) Want of employment in consequence principally of the depression under which the mining interest for the present labors—and the fact that the Mariposa Grant, a valuable property, containing over 77,000 acres, has been lying idle for years.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county (or township). Capital should invest in the large number of good quartz mines situated in this county and work them.
67. How do they obtain sustenance and clothing. By buying it.
68. In what condition are the roads in your county (railroads excluded). Middling fair.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. A revival of the quartz mining interest, which is the principal interest of the county, a water ditch to furnish water to placer miners, ranchers, farmers, and gardeners, and a railroad to give us a market for our produce.
70. How are the sanitary conditions of the lands in your county. Excellent; the healthiest county in the State.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

8. How many brewers in the whole county (or township). 2. The owners brew themselves.
9. How many blacksmiths in the whole county (or township). 13. Hours constituting a day's work, maximum. 12; minimum, 8; average, 10. Blacksmiths work for themselves; if employed, $2 to $3 50 are paid per day, with board.

Form No. 5. Relating to Clerical amd All Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

4. How many barbers are employed in your county. 3.
24. How many journalistic editors in your county (or town). 2.
27. How many hostlers in your county (or town). 4.
35. How many printers employed in your county. 6. Males, 5; females, 1. Hours constituting a day's work, maximum, 10; minimum, 6; average, 8. Average number of months engaged per annum, 12. Wages paid to males per week, maximum, $10; minimum, $5; average, $7 50; with board. Female printer is editor's wife.
37. How many school teachers are employed in your county. 34. Males, 15; females, 19. Hours constituting a day's work, maximum, 6; minimum, 4; average, 5¾. Average number of months engaged per annum, 6. Wages paid to males, maximum, $100; minimum, $60; average, $77 50; without board. Wages paid to females, maximum, $85; minimum, $60; average, $67 81; without board.
40. How many telegraph operators are employed in your county. 2. Males, 1; females, 1. They are only here during the summer season.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county (or township). $673,687.
2. What is the total value of all the buildings in the towns of your county (or township). $70,100.
3. What is the total value of all the machineries used for mechanical manufacturing purposes. $10,090.
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county (or township). No apprentice system.
6. Are any trade unions in your county. No.
14. What is the cost of food or board per month. $20 to $25.
15. What is the cost of fuel. Wood, $4 to $6 50 per cord; coal, none used.
16. What is the cost of water for household purposes per month. Nothing.
17. What is the cost of water for irrigation purposes. No irrigation ditches here that sell water.
23. What suggestions can you make to ameliorate the condition of the poor. There is nothing wanted here except capital to open our resources, so as to give employment. People here are all willing to work if they could get work.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county (or township). Males, about 200; females, about 30.
2. What are their condition. They are here mostly mining; they labor for less wages than white men, and, as far as they are employed, take that much employment away from white laborers. They never patronize Americans for what they need, but confine their trading and custom entirely amongst themselves. The tendency of their presence here is to drag white laboring people down to their own level.
3. What are their social habits. They have no idea of morality, such as white people have; are profligate, and inveterate gamblers.
4. What are their sanitary habits. Bad, as they crowd together without the least regard to laws of health.
8. What wages are paid to domestic servants per month. $20, with board.
10. What wages are paid to cooks per month. $20 to $25, with board.
13. How many Chinese laundries are in your county (or township). 2.
17. How many Chinese miners are in your county (or township). About 150, including placer miners.
18. What wages do they earn. $1 to $1 25 per day; without board, if employed.
19. How many of them are employed in manufactures of all kinds. No manufactures here.
24. How much do they expend for food, per head or collectively, per month. $5 to $10.
25. What percentage of the food are home products. About 20 per cent.
26. What percentage of the food are imported from foreign countries. About 80 per cent.
28. What percentage of the clothing is of American manufacture. About 10 per cent.
29. What percentage of the clothing is imported. 90 per cent.
30. How much of their yearly earnings are sent out of the country. All they have left.
32. To what extent does their employment come in competition with the white industrial classes. To the full extent of their being here.

Form No. 8. Relating to Inmates of Jails and Other Reformatory Institutions.

1. How many inmates are in your county jail and other reformatory institutions in your county. Males, 1.
2. What are their ages. About 30.
3. What are their nationalities. Indian.
5. How many of the inmates are employed. Don't work.

MENDOCINO COUNTY.

Statistical Statement made by L. T. Day, Assessor of Mendocino Township (or County).

Form No. 1. Relating to Agriculture.

1. How many acres of land (exclusive of town lots) does your county or township contain. 2,600,000.
2. How many acres of land (exclusive of town lots) are under cultivation. 70,000.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 2,530,000.
4. How many acres of land (exclusive of town lots) are timber land. 1,000,000.
5. How many acres of land (exclusive of town lots) are open for preëmption. 1,000,000, about.
6. What is the maximum price per acre (exclusive of town lots). $100.
7. What is the minimum price per acre (exclusive of town lots). $1 25.
8. What is the average price per acre (exclusive of town lots). $6.
9. How many ranchers are in your county (or township). 1,600.
10. How many ranch owners. 1,600.
11. How many have from three to ten acres. 51.
12. How many have from ten to twenty-five acres. 36.
13. How many have from twenty-five to fifty acres. 87.
14. How many have from fifty to one hundred acres. 117.
15. How many have from one hundred to one hundred and fifty acres. 1,235; 517 timber claimants, non-residents.
16. How many have from two hundred and fifty to five hundred acres. 293.
17. How many have from five hundred to one thousand acres. 183.
18. How many have from one thousand to two thousand five hundred acres. 124.
19. How many have from two thousand five hundred to five thousand acres. 35.
20. How many have five thousand acres and over. 26.
21. How many ranches are worked by owners. About 1,600.
22. How many ranches are worked in shares between owner and renter. About 40.
23. How many ranches are worked in shares between owner and laborers. None.
24. How many ranches are rented. About 40.
25. What is the maximum rent per acre. $10.
26. What is the minimum rent per acre. $1.
27. What is the average rent per acre. $1 50.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county (or township) contain. 2,500.
29. What is their value. $1,000,000.
31. What is their cost per mile of fences in your county. $300.
33. What is the value of the labor-saving agricultural implements in your county. $1,000,000.
36. What percentage of ranch cultivators in your county (or township) use labor-saving machines. 50 per cent.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county (or township). 700.
38. What are their ages. From 15 to 60.
40. How many of the laborers are females. None.
42. What are the maximum wages paid (including board) per month. $30.
43. What are the minimum wages paid (including board) per month. $20.
44. What are the average wages paid (including board) per month. $25.
45. What industry of agriculture pays the maximum. Hops.
47. How many months in the year are laborers generally employed. 12.
49. What are the maximum hours of labor der diem. 14.
50. What are the minimum hours of labor per diem. 12.
51. What are the average hours of labor per diem. 10.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Yes.
55. How many road laborers are in your county. The roads are worked by farm hands.
56. What is the wages paid to them. $2.

57. What is the laborer's condition in general. Morally, average; physically, first class; mentally, good.
68. In what condition are roads in your county (railroads excluded). Not good.
70. How are the sanitary conditions of the lands in your county. Good.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

7. How many bakers in the whole county. 5. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; with board.
8. How many brewers in the whole county. 6. Hours constituting a day's work, 10. Wages paid, maximum, $2 50; minimum, $1 50; average, $2; with board.
9. How many blacksmiths in the whole county. 75. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
13. How many brick-makers in the whole county. 12. Hours constituting a day's work, 10. Wages paid, $4; without board.
14. How many broom-makers in the whole county. 3. Wages paid, $2 50; without board.
18. How many cabinet-makers in the whole county. 12. Wages paid, $4; without board.
21. How many carpenters and joiners in the whole county. 75. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $3; average, $3 50; without board.
22. How many carpenters (ship) in the whole county. 15. Hours constituting a day's work, 10; wages paid, $4. Without board.
23. How many carriage and wagon makers in the whole county. 20. Hours constituting a day's work, 10. Wages paid, $3; without board.
33. How many employés in dairies in the whole county (or township). 60. Hours constituting a day's work, 12. Wages paid, $1; with board.
34. How many employés in glassworks in the whole county (or township). 20. Hours constituting a day's work, 12. Wages paid, $1; with board.
38. How many hat and cap makers in the whole county (or township). 5. Hours constituting a day's work, 10. Wages paid, $3; without board.
44. How many marble-cutters in the whole county (or township). 20. Hours constituting a day's work, 10. Wages paid, $3; without board.
47. How many pattern-makers in the whole county (or township). 10. Hours constituting a day's work, 10. Wages paid, $3; without board.
52. How many employés in rolling mills in the whole county (or township). 10. Hours constituting a day's work, 10. Wages paid, $3; without board.
54. How many saddlers and harness-makers in the whole county (or township). 10. Hours constituting a day's work, 12. Wages paid, $2 50; with board.
58. How many shingle-makers in the whole county (or township). 50. Hours constituting a day's work, 10. Wages paid, $2; with board.
59. How many shoe-makers in the whole county (or township). 12. Wages paid, $2; without board.
60. How many soda works employés in the whole county (or township). 2. Hours constituting a day's work, 10. Wages paid, $3 50; without board.
62. How many tailors in the whole county (or township). 7. Hours constituting a day's work, 10. Wages paid, $2 50; without board.
63. How many tanners in the whole county (or township). 5. Hours constituting a day's work, 10. Wages paid, $3; without board.
64. How many tinsmiths in the whole county (or township). 4. Hours constituting a day's work, 10. Wages paid, $2 50; without board.
65. How many upholsterers in the whole county (or township). 2. Hours constituting a day's work, 10. Wages paid, $3; without board.
66. How many wheelwrights in the whole county (or township). 10. Hours constituting a day's work, 10. Wages paid, $3; without board.
67. How many wine manufacturers in the whole county (or township). 1. Hours constituting a day's work, 10. Wages paid, $2; with board.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

1. How many miles of steam railroads in operation are in your county. 25.
2. How many employés of all kinds on above are in your county. 100. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid per day, maximum, $3; minimum, $2; average, $2 50; without board.
11. How many stage drivers in your county. 15. Average hours per day, 12. Average number of months engaged per annum, 12. Wages paid per day, $1; with board.
12. How many teamsters hauling, etc., in your county. 100. Average hours per day, 12. Average number of months engaged per annum, 12. Wages paid per day, $1; with board.
14. How many agents, railroad, stage, express, and steamboats, in your county. 20. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2 50; average, $3; without board.
15. How many men are engaged in express companies in your county. 10. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2 50; average, $3; without board.

Form No. 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

1. How many auctioneers are employed in your county. 1. Average number of months engaged per annum, 12. Wages paid, $5; without board.

4. How many barbers are employed in your county. 9. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $2; without board.

5. How many bookkeepers in all departments in your county. 20. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, $3; without board.

6. How many bricklayers in your county. 12. Hours constituting a day's work, 10. Average number of months engaged per annum, 10. Wages paid, $3; without board.

7. How many clerks are employed in banking institutions in your county. 2. Hours constituting a day's work, 6. Average number of months engaged per annum, 12. Wages paid, $2; without board.

8. How many clerks are employed in insurance offices in your county. 7. Hours constituting a day's work, 8. Average number of months engaged, per annum, 12. Wages paid, $2; without board.

9. How many clerks are employed in lawyers' offices in your county. 4. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $2; without board.

10. How many clerks are employed in general merchandising in your county. 50. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $2; without board.

11. How many clerks are employed in county and town govevernments in your county. 3. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, $2 50; without board.

12. How many cooks are employed in your county (or town). 40. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $1 50; with board.

13. How many dentists are employed in your county (or town). 7. Average number of months engaged per annum, 12. Wages paid, $4; without board.

14. How many draughtsmen are employed in your county (or town). 12. Average number of months engaged per annum. 12. Wages paid, $10; without board.

18. How many engineers (civil) in your county (or town). 3. Hours constituting a day's work. 8 Average number of months engaged per annum, 12. Wages paid, $10; without board.

19. How many engineers (stationary engines) are in your county (or town). 30. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $4; without board.

21. How many florists and gardeners in your county (or town.) 12. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $2; without board.

24. How many journalistic editors in your county (or town). 5. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $2 50; without board.

25. How many journalistic reporters in your county (or town). 10. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $3; without board.

26. How many hod carriers in your county (or town). 15. Hours constituting a day's work, 10. Average number of months engaged per annum, 10. Wages paid, $2; without board.

27. How many hostlers in your county (or town). 30. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $1; without board.

28. How many laundrymen in your county (or town). 50; Chinese.

30. How many lumbermen in your county (or town). 1,000. Hours constituting a day's work, 12. Average number of months engaged per annum, 8. Wages paid, maximum, $3; minimum, $1; average, $2; with board.

31. How many milliners in your county (or town). 15. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $1; with board.

32. How many painters (house) in your county (or town). 25. Hours constituting a day's work, 10. Average number of months engaged per annum, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.

34. How many plasterers are employed in your county. 5. Hours constituting a day's work, 10. Wages paid, $4; without board.

35. How many printers are employed in your county. 20. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $1; without board.

36. How many photographers are employed in your county. 4. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $4; without board.

37. How many school teachers are employed in your county. 76. Males, 30; females, 46. Hours constituting a day's work, maximum, 6; minimum, 4½; average, 5¼. Average number of months engaged per annum, 7½. Wages paid to males, maximum, $100 per month; minimum, $50 per month; average, $65 per month; without board. Wages paid to females, maximum, $80 per month; minimum, $45 per month; average, $60 per month; without board.
38. How many seamstresses are employed in your county. 20. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $1; without board.
39. How many servants (domestic) are employed in your county. 50; females. Hours constituting a day's work, maximum, 10; minimum, 8; average. 10. Average number of months engaged per annum, 12. Wages paid, maximum, $20 per month; minimum, $8 per month; average, $12 per month; without board.
40. How many telegraph operators are employed in your county. 9. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, $3; without board.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. 40. Males, 25; females, 15. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid to males, maximum, $25; minimum, $10; average, $12; with board. Wages paid to females, maximum, $15; minimum, $8; average, $12; with board.
43. How many watch-makers employed in your county. 5. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, $3; without board.
47. How many wood-cutters are employed in your county. 50. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $2; without board.

FORM No. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county (or township). $5,044,330.
2. What is the total value of all the buildings in the towns of your county (or township). $521,714.
3. What is the total value of all the machineries used for mechanical and manufacturing purposes. $178,350.
4. What is the total value of all the materials used in manufactures in your county (or township). $5,000.
9. How are the sanitary conditions of the workshops of mechanics and manufacturers. Good.
10. How are the sanitary conditions of the dwellings of the wage workers. Good.
11. What percentage of dwellings are owned by them. 50.
12. What is the cost of rent of dwellings generally occupied by the wage workers. From $8 to $12.
13. What is the cost of rent of rooms generally occupied by the wage workers. None rented.
14. What is the cost of food or board per month. $20.
15. What is the cost of fuel. Wood, $3 to $4 per cord.
16. What is the cost of water for household purposes per month. $1 50.
18. How many poor people live in your county (or township). Males, 20 in poorhouse; females, 2.
19. Their ages. From 20 to 70.
20. The cause. Age, disease, and intemperance; nationality, mixed.
22. What are their conditions. Sanitary, excellent; morally, fair.
23. What suggestions can you make to ameliorate their condition. Less intemperance, and a manifestation of more industry.
24. How many corporations (local) are in your county. 24, besides societies and churches.
25. Name them. Fort Bragg Redwood Company, Little Valley Lumber Company, Riverside Lumber Company, Coöperative Terra Cotta, Brick, and Tile Association, Albion Railroad Company, Fort Bragg Railroad Company, Antioch and Mendocino Mill and Lumber Company, Point Arena Railroad Company, Casper Lumber Company, Redwood Lumber Company, Mendocino Railroad Company, Mendocino Agricultural Association, Gualala Mill Company, Mendocino Lumber Company, Salmon Creek Mill Company, Ukiah Water Company, Salmon Creek Railroad Company, Russian River Toll Road Company, Bank of Ukiah, Bank of Mendocino, Greenwood Creek Mill Company, Ukiah Park Association.

FORM No. 7. RELATING TO CHINESE (EXCLUSIVELY).

1. How many Chinese are in your county. Males, 1,000.
2. What are their conditions. The most of them are doing well, and are at work doing something. The most of them working in sawmills and on hop ranches.
3. What are their social habits. Not good; they all drink and gamble.
4. What are their sanitary habits. Good.
6. How many of them are employed. All.

7. How many of them are domestic servants. 100.
8. What wages are paid to domestic servants. $10 to $30 per month, with board.
9. How many of them are cooks. 200.
10. What wages are paid to them. $20 to $30 per month, with board.
11. How many are laundrymen. 50.
13. How many Chinese laundries are in your county (or township). 10.
14. How many Chinese do they employ in your county (or township). 40.
15. How many Chinese cultivate the soil in your county (or township). 100.
16. What wages are paid them per month with board. They get an interest in the crops.
25. What percentage of the food are home products. 30 per cent.
26. What percentage of the food are imported from foreign countries. 70 per cent.
32. To what extent does their employment come in competition with the white industrial classes. If there were no Chinese their places would be filled with whites.

FORM NO. 8. RELATING TO INMATES OF JAILS AND OTHER REFORMATORY INSTITUTIONS.

1. How many inmates are in your county jail and other reformatory institutions in your county. 6.
2. What are their ages. From 17 to 60.
3. What are their nationalities. Native born.
4. What are their conditions and sanitary habits. Good.
5. How many of the inmates are employed. None.

MERCED COUNTY.

Statistical Statement made by W. B. Aiken, Assessor of Merced County.

FORM NO. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county or township contain. 1,221,410.
2. How many acres of land (exclusive of town lots) are under cultivation. 321,000.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 250,000.
4. How many acres of land (exclusive of town lots) are timber land, lightly. 200,000.
5. How many acres of land (exclusive of town lots) are open for preëmption. 81,800.
6. What is the maximum price per acre (exclusive of town lots). $70.
7. What is the minimum price per acre (exclusive of town lots). $1 50.
8. What is the average price per acre (exclusive of town lots). $12.
9. How many ranches are in your county (or township). 751.
10. How many ranch owners. About 600.
11. How many have from three to ten acres. 8.
12. How many have from ten to twenty-five acres. 7.
13. How many have from twenty-five to fifty acres. 47.
14. How many have from fifty to one hundred acres. 54.
15. How many have from one hundred to two hundred and fifty acres. 208.
16. How many have from two hundred and fifty to five hundred acres. 166.
17. How many have from five hundred to one thousand acres. 134.
18. How many have from one thousand to two thousand five hundred acres. 80.
19. How many have from two thousand five hundred to five thousand acres. 21.
20. How many have five thousand acres and over. 24.
21. How many ranches are worked by owners. 500.
24. How many ranches are rented. 150.
25. What is the maximum rent per acre. $5.
26. What is the minimum rent per acre. 25 cents.
27. What is the average rent per acre. $2 50.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county (or township) contain. 1,500.
29. What is their value. $500,000.
30. How many miles of fences are in your county (or township). 170.
31. What is their cost per mile. $200.
32. What is the value of all the agricultural implements in your county (or township). $95,000.
33. How many labor saving agricultural implements are in your county (or township). 400.
34. What is their value. $80,000.
35. What is their combined horse-power. 1,600.
36. What percentage of ranch cultivators in your county (or township) use labor-saving machines. 80.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county (or township). 538.
38. What are their ages. From 18 to 60.

42. What are the maximum wages paid (including board) per month. $50.
43. What are the minimum wages paid (including board) per month. $20.
44. What are the average wages paid (including board) per month. $30.
45. What industry of agriculture pays the maximum. Wheat raising.
46. What industry of agriculture pays the minimum. Gardening.
47. How many months in the year are laborers generally employed. 8.
48. When unemployed in agriculture what industry do they pursue to gain a livelihood. Nothing. Nearly all the farming in Merced County is grain raising, and a portion of the spring and fall there is no call for laborers, and nothing whatever for them.
49. What are the maximum hours of labor per diem. In summer, 15.
50. What are the minimum hours of labor per diem. In winter, 10.
51. What are the average hours of labor per diem. 12.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. No. The time, of course, is deducted, or rather they are employed by the month and paid only for the time they work.
55. How many road laborers are in your county (or township). None known as such class, but laborers go and work the roads.
56. What is the wages paid to them. $2.
57. What is the laborer's condition in general. Morally, average; physically, good; mentally, good.
58. How many laborers (exclusive of Chinese) are in your county (or township) unemployed. 300.
59. How many of the unemployed are native Americans. 150.
60. How many of the unemployed are foreigners. 150.
61. Their nationality. Irish, German, French, Portuguese, and Arabs.
62. What are their ages. From 18 to 60.
65. What are the causes of their idleness. As stated before, we grow nothing as a business, but grain, which does not at this time—September, October, and November—require laborers.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county (or township). Irrigation of the lands.
67. How do they obtain sustenance and clothing. They work eight months; then board it out.
68. In what condition are the roads in your county (railroads excluded). Reasonably good.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. Yes. Let the state by appropriations organize a system of irrigation, and distribute the water supply equally to all the lands, or at least prevent the sale of water rights by corporations, and compel them to distribute the water to all; and Merced, with 500,000 acres susceptible of irrigation, will furnish continual employment for 20,000 laborers. The policy of the State thus far has been to give its waters to corporations to do as they please with. Without compelling its distribution they apply it to their own lands and favor few others.
70. How are the sanitary conditions of the lands in your county. Good.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

7. How many bakers in the whole county. 6. Hours constituting a day's work, maximum, 12; minimum, 8; average 10. Wages paid, maximum, $2 50; minimum, $1 50; average, $2; with board.
8. How many brewers in the whole county. 6. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; with board.
9. How many blacksmiths in the whole county. 58. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; with board.
12. How many bookbinders in the whole county. 7. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; with board.
20. How many canneries (fish, fruit, etc.) employés in the whole county. 46. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $5; minimum, $2 50; average, $3; with board.
26. How many cigar-makers in the whole county. 5. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10; wages paid, maximum, $3; minimum, $2; average, $2 50; with board.
32. How many employés in distilleries in the whole county (or township). 4. Hours constituting a day's work, maximum, 12; minimum, 8; average, 4. Wages paid, maximum, $3; minimum, $1; average, $2 50; with board.
33. How many employés in dairies in the whole county (or township). 8. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $3; minimum, $1; average, $1 50; with board.
37. How many gunsmiths in the whole county (or township). 2. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. (In their own employ.)

43. How many machinists in the whole county (or township). 8. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $5; minimum, $2 50; average, $3; with board.
46. How many millers in the whole county (or township). 8. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $4; minimum, $2 50; average, $3; with board.
54. How many saddlers and harness-makers in the whole county (or township). 6. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; with board.
59. How many shoe-makers in the whole county (or township). 12. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $2 50; minimum, $2; average, $2 25; with board.
61. How many stone-cutters in the whole county (or township). 3. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10.
64. How many tinsmiths in the whole county (or township). 6. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; with board.
66. How many wheelwrights in the whole county (or township). 6. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; with board.
69. How many woolen mills employés in the whole county (or township). 8. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $4; minimum, $2; average, $2 50; with board.
70. How many of the aforementioned professions are unemployed. 100.
71. Their nationality. Americans, Germans, Irish; mostly natives.
72. Their ages. From 18 to 50.
73. The causes. The business is not here to give them employment.
74. How do they manage to subsist. By ordinary labor.

FORM NO. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

11. How many stage drivers in your county. 4. Hours constituting a day's work, 10. Average number of months engaged per annum, 8. Wages paid, maximum, $3; minimum, $1 50; average, $2 50; with board.
12. How many teamsters hauling, etc., in your county. 24. Hours constituting a day's work, 12. Average number of months engaged per annum, 10. Wages paid, maximum, $2; minimum, $1 25; average, $1 50; with board.
13. How many draymen hauling, etc., in your county. 10. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $2; minimum, $1 25; average, $1 50; with board.
14. How many agents, railroad, stage, express, and steamboat in your county. 8. Hours constituting a day's work, 8. Average number of months engaged per annum, 8. Wages paid, maximum, $2 50; minimum, $2; average, $2 25; with board.
15. How many men are engaged in express companies in your county. 8. Hours constituting a day's work, 8. Average number of months engaged per annum, 8. Wages paid, maximum, $3; minimum, $2; average, $2 50; with board.
27. How many men generally engaged in transportation are out of employment in your county, 10.
29. Their ages and nationalities. Natives.
30. How do they subsist. By labor and other business.

FORM NO. 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

4. How many barbers are employed in your county. 6. Hours constituting a day's work, maximum, 18; minimum, 8; average, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $2 50; minimum, $1 50; average, $2; with board.
5. How many bookkeepers in all departments in your county. 28. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, maximum, $5; minimum, $3; average, $4; with board.
6. How many bricklayers in your county. 10. Hours constituting a day's work, 8. Average number of months engaged per annum, 8. Wages paid, maximum, $4; minimum, $3; average, $3 50; with board.
7. How many clerks are employed in banking institutions in your county. 3. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, $5; with board.
10. How many clerks employed in general merchandising in your county. 40. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $5; minimum, $2; average, $3; with board.
11. How many clerks are employed in county and town governments in your county. 1. Hours constituting a days's work, 8. Wages paid, $8; with board.
12. How many cooks are employed in your county (or town). 32. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Wages paid, maximum, $2; minimum, 75 cents; average, $1; with board.

15. How many draymen are employed in your county (or town). 10. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $2; minimum, $1 25; average, $1 50.
16. How many dress and cloak makers in your county (or town). 25. Hours constituting a day's work, 8. Wages paid, maximum, $2; minimum, $1; average, $1 50; with board.
18. How many engineers (civil) in your county (or town). 3. Hours constituting a day's work, 8. Wages paid, $4; with board.
19. How many engineers (stationary engines) in your county (or town). 18. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; with board.
21. How many florists and gardeners in your county (or town). 18. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $3; minimum, 50 cents; average, $2; with board.
22. How many fishermen in your county (or town). 3. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $2; minimum, $1; average, $1 50; with board.
24. How many journalistic editors in your county (or town). 4. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; with board.
26. How many hod carriers in your county (or town). 5. Hours constituting a day's work, 8. Wages paid, maximum, $3; minimum $2; average, $2 50; with board.
27. How many hostlers in your county (or town). 16. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $2 50; minimum, $1; average, $1 25; with board.
28. How many laundrymen in your county (or town). 6.
30. How many lumbermen in your county (or town). 6. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $2; minimum, $1 50; average, $1 75; with board.
31. How many milliners in your county (or town). 9.
32. How many painters (house) in your county (or town). 28. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $4; minimum, $2; average, $3; with board.
34. How many plasterers are employed in your county. 6. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
35. How many printers are employed in your county. 6. Hours constituting a day's work, 8. Wages paid, maximum, $2 50; minimum, 50 cents; average, $1 50; with board.
36. How many photographers are employed in your county. 1.
37. How many school teachers are employed in your county. 48. Hours constituting a day's work, 8. Wages paid, maximum, $6; minimum, $2; average, $3; without board.
39. How many servants (domestic) are employed in your county. 20. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $1 50; minimum, 75 cents; average, $1; with board.
40. How many telegraph operators are employed in your county. 4.
41. How many telegraph messenger boys are employed in your county. 4.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. 24. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $1 50; minimum, 75 cents; average, $1; with board.
43. How many watch-makers are employed in your county. 4. Hours constituting a day's work, 8. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
44. How many well-borers (artesian) are employed in your county. 8. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $2 50; minimum, $1 25; average, $2; with board.
48. How many artisans, not above enumerated, are employed in your county. 10.

FORM NO. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county (or township). $1,914,823.
2. What is the total value of all the buildings in the towns of your county (or township). $340,809.
3. What is the total value of all the machineries used for mechanical and manufacturing purposes. $40,000.
4. What is the total value of all materials used in manufactures in your county (or township). $85,000.
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county. Not at all.
6. Are any trade unions in your county. No.
9. How are the sanitary conditions of the workshops of mechanics and manufacturers. Good.
10. How are the sanitary conditions of the dwellings of the wage workers. Good.

11. What percentage of dwellings are owned by them. 50.
12. What is the cost of rent of dwellings generally occupied by the wage workers. $12 per month.
14. What is the cost of food or board per month. $20.
15. What is the cost of fuel. Coal, $7 per ton.
17. What is the cost of water for irrigation purposes. $2 50 per acre.
18. How many poor people live in your county (or township). About 100.
19. Their ages. From 1 to 60.
20. The cause. Bad luck, sickness, adversity, and other things too numerous to mention. Nationality. Americans, Irish, and Germans.
21. How many rooms do they occupy. 60.
22. What are their conditions. Sanitary, good; morally, excellent.
23. What suggestions can you make to ameliorate their condition. None.
24. How many corporations (local) are in your county. 5.
25. Name them. Merced Security Savings Bank; Merced Bank; Merced Gas Company; Merced Canal and Irrigation Company; Merced Woolen Mills, capital stock, $250,000, paid up capital, $109,809.
26. Name capital stock of each. Merced Security Savings Bank, $300,000, paid up capital, $60,000; Merced Bank, $200,000, paid up capital, $42,225; Merced Gas Company, $60,000, paid up capital, $10,000.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county. Males, 550; females, 40.
2. What are their conditions. Good, looking at their situations as Chinese.
3. What are their social habits. They are industrious, the only redeeming feature about them; opium fiends, idolaters, worshipers of white bulls, brindled sheep, and skinned hogs; live in huts and holes like badgers and squirrels; addicted to stealing chickens and hogs.
4. What are their sanitary habits. The manner in which they live is repulsive to American taste.
9. How many of them are cooks. 60.
10. What wages are paid to them per month. $20.
11. How many laundrymen. 35.
12. What wages do they earn per month. $15 to $20; with board.
13. How many Chinese laundries are in your county. 10.
14. How many Chinese do they employ in your county. 25.
15. How many Chinese cultivate the soil in your county. 100.
16. What wages are paid them per month, with board. $20.
17. How many Chinese miners are in your county (or township). 25.
18. What wages do they earn. $25; with board.
19. How many of them are employed in manufactures of all kinds, 50; in woolen mills.
20. Name the various industries and number employed in each of them. 200, Merced Canal; 25 on the Buhach and Manufacturing Company's Plantation; 25 on railroad.
21. What are the wages paid in each of the industries employed. From $15 to $25 per month. I will state that it is impossible to get information from any company that employ them. None ever responded to our inquiry yet; they seem to think they have a good thing that they should keep to themselves.
22. What is the gross amount paid them yearly in every branch in which they are engaged. $124,000.
23. How much do they expend for rent, either per head or collectively. $1,000 annually.
24. How much do they expend for food per head. $3 per month.
25. What percentage of the food are home products. 20.
26. What percentage of the food are imported from foreign countries. 80.
27. How much do they expend for clothing per head each year. $10.
28. What percentage of the clothing is of American manufacture. 20.
29. What percentage of the clothing is imported. 80.
30. How much of their yearly earnings are sent out of the country. $90,000.
31. What percentage to the amount of earnings. 80.
32. To what extent does their employment come in competition with the white industrial classes. To the extent of driving out of employment just as many of the white class as there are Chinese employed.

Form No. 8. Relating to Inmates of Jails and Other Reformatory Institutions.

1. How many inmates are in your county jail and other reformatory institutions in your county. 3.
3. What are their nationalities. 1 German; 1 Irishman; 1 Costa Rican.
4. What are their conditions and sanitary habits. Good.
5. How many of the inmates are employed. 1.
6. What does their employment consist of. On the Court House grounds.
7. To what extent does their employment come in competition with the labor of mechanics, artisans, and all other white laborers outside of reformatory institutions. Not at all.

NAPA COUNTY.

Statistical Statement made by John Kean, Assessor of Napa County.

FORM NO. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county contain. 468,000.
2. How many acres of land (exclusive of town lots) are under cultivation. 61,370.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 200,000.
4. How many acres of land (exclusive of town lots) are timber land. 20,000.
5. How many acres of land (exclusive of town lots) are open for preëmption. 18,000.
6. What is the maximum price per acre (exclusive of town lots). $250.
7. What is the minimum price per acre (exclusive of town lots). $1 25.
8. What is the average price per acre (exclusive of town lots). $75.
17. How many have from five hundred to one thousand acres. 10.
18. How many have from one thousand to two thousand five hundred acres. 4.
19. How many have from two thousand five hundred to five thousand acres. 1.
21. How many ranches are worked by owners. Nearly all.
22. How many ranches are worked in shares between owner and renter. Very few.
25. What is the maximum rent per acre. $30.
26. What is the minimum rent per acre. $3.
27. What is the average rent per acre. $10.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county (or township) contain. Don't know.
29. What is their value. $1,277,490.
30. How many miles of fences are in your county (or township). Too hard.
31. What is their cost per mile. About $400.
32. What is the value of all the agricultural implements in your county (or township). $25,213.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county (or township). Don't know.
38. What are their ages. From 15 to 75.
42. What are the maximum wages paid (including board) per month. $50.
43. What are the minimum wages paid (including board) per month. $15.
44. What are the average wages paid (including board) per month. $30.
45. What industry of agriculture pays the maximum. Vineyards.
46. What industry of agriculture pays the minimum. Grain.
47. How many months in the year are laborers generally employed. 4 or 5.
49. What are the maximum hours of labor per diem. About 14.
50. What are the minimum hours of labor per diem. 13.
51. What are the average hours of labor per diem. 14.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Yes.
55. How many road laborers are in your county (or township). Don't know.
56. What is the wages paid them. $2.
59. How many of the unemployed are native Americans. Very few.
60. How many of the unemployed are foreigners. Nearly all.
61. Their nationality. Swiss, Italians, and Irish.
62. What are their ages. From 15 to 75.
65. What are the causes of their idleness. (Please state everything you know about it.) No employment for them.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county (or township). Exclude the Chinese and divide the large tracts of land into small tracts.
68. In what condition are the roads in your county (railroads excluded). Very good.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. See 66.
70. How are the sanitary conditions of the lands in your county. Good.

FORM NO. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

5. How many employés in agricultural implements in the whole county (or township). 20. Hours constituting a day's work, 10. Wages paid, $3; without board.
7. How many bakers in the whole county (or township). 8. Hours constituting a day's work, 12. Wages paid, $2; without board.
8. How many brewers in the whole county (or township). 2.
9. How many blacksmiths in the whole county (or township). 25 or 30. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; without board.
13. How many brick-makers in the whole county (or township). 3.

18. How many cabinet-makers in the whole county (or township). 2. Hours constituting a day's work, 10. Wages paid, $3; without board.
21. How many carpenters and joiners in the whole county (or township). 50 or 60. Hours constituting a day's work, 10. Wages paid, maximum, $5; minimum, $2; average, $3; without board.
23. How many carriage and wagon makers in the whole county (or township). 5 or 6. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2 50; average, $3; without board.
27. How many confectioners in the whole county (or township). 1.
28. How many coffee and spice mills employés in the whole county (or township). 1.
29. How many coopers in the whole county (or township). 10 or 15. Hours constituting a day's work, 12. Wages paid, maximum, $3; minimum, $2; average, $2 50.
32. How many employés in distilleries in the whole county (or township). 20 or 30. Hours constituting a day's work, 12. Wages paid, maximum, $2; average, $1 50; with board.
33. How many employés in dairies in the whole county (or township). 30. Hours constituting a day's work, maximum, 16; average, 14. Wages paid, $1; with board.
35. How many glove-makers in the whole county (or township). 1.
36. How many glue-makers in the whole county (or township). 1.
37. How many gunsmiths in the whole county (or township). 2.
41. How many locksmiths in the whole county (or township). 1.
42. How many employés in limekilns in the whole county (or township). 3.
43. How many machinists in the whole county (or township). 10 or 12. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
44. How many marble-cutters in the whole county (or township). 2.
46. How many millers in the whole county (or township). 3.
49. How many potters in the whole county (or township). 1.
51. How many plumbers in the whole county (or township). 3.
54. How many saddlers and harness-makers in the whole county (or township). 5.
57. How many sash, door, and blind makers in the whole county (or township). 1. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
59. How many shoe-makers in the whole county (or township). About 15. Hours constituting a day's work, 12. Wages paid, maximum, $3; minimum, $1 50; average, $2 50; without board.
60. How many soda works employés in the whole county (or township). 8 or 10. Hours constituting a day's work, 12. Wages paid, maximum, $2; minimum, $1 50; average, $2; without board.
61. How many stone-cutters in the whole county or township. 7 or 8. Hours constituting a day's work, 12. Wages paid, maximum, $3; minimum, $2; average, $2; without board.
62. How many tailors in the whole county (or township). About 10. Hours constituting a day's work, 16. Wages paid, maximum, $2; minimum, $1 50; average, $2; without board.
63. How many tanners in the whole county (or township). 2.
64. How many tinsmiths in the whole county (or township). 6.
65. How many upholsterers in the whole county (or township). 3.
66. How many wheelwrights in the whole county (or township). 8.
67. How many wine manufacturers in the whole county (or township). 50 or 60.
69. How many woolen mills employés in the whole county (or township). 12 or 15.

FORM No. 3. RELATING TO MINES AND MINERS (CHINESE EXCLUDED).

19. How many quicksilver mines are in your county. 2.
20. How many quicksilver miners are in your county. 250. Hours constituting a day's work, 12. Wages paid, from $30 to $50 per month; with board.
25. How many limestone quarries are in your county. 1.
26. How many limestone miners are in your county. 3. Hours constituting a day's work, 12. Wages paid, $30 per month; with board.

FORM No. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

1. How many miles of steam railroads in operation are in your county. 41.
2. How many employés of all kinds on above are in your county. About 25.
11. How many stage drivers in your county. 3. Wages paid, $50 per month; with board.
13. How many draymen hauling, etc., in your county. 10.
14. How many agents, railroad, stage, express, and steamboat, in your county. 3.
15. How many men are engaged in express companies in your county. 10.
16. How many steamboats and sailing vessels of all kinds in your county. 6.
17. How many captains thereon in your county. 6.
20. How many engineers thereon in your county. 2.
21. How many freight clerks thereon in your county. 2.

Form No. 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

1. How many auctioneers are employed in your county. 1.
4. How many barbers are employed in your county. 8.
6. How many bricklayers in your county. 8 to 10.
7. How many clerks are employed in banking institutions in your county. 9.
8. How many clerks are employed in insurance offices in your county. 4 or 5.
9. How many clerks are employed in lawyers' offices in your county. 2 or 3.
10. How many clerks are employed in general merchandising in your county. 25 or 30.
11. How many clerks are employed in county and town governments in your county. 4.
13. How many dentists are employed in your county. 1.
14. How many draughtsmen are employed in your county. 2.
15. How many draymen are employed in your county. 10.
18. How many engineers (civil) in your county. 3.
19. How many engineers (stationary engines) in your county. 8.
21. How many florists and gardeners in your county (or town). 4.
23. How many glaziers in your county. 2.
24. How many journalistic editors in your county. 6.
25. How many journalistic reporters in your county. 5.
27. How many hostlers in your town (Napa). 5.
28. How many laundrymen in your county (or town). 4.
30. How many lumbermen in your county (or town). 7.
31. How many milliners in your county (or town). 7.
32. How many painters (house) in your county (or town). 8.
33. How many fresco painters are employed in your county. 1.
34. How many plasterers are employed in your county. 5.
35. How many printers are employed in your county. 8 or 9.
36. How many photographers are employed in your county. 2.
37. How many school teachers are employed in your county. 66.
40. How many telegraph operators are employed in your county. 5.
41. How many telegraph messenger boys are employed in your county. 1.
43. How many watch-makers are employed in your county. 4 or 5.
44. How many well-borers (artesian) are employed in your county. 2.
46. How many wood-carvers and turners are employed in your county. 2.
47. How many wood cutters are employed in your county. 40 or 50.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county. $5,946,780.
2. What is the total value of all the buildings in the towns of your county. $108,792.
12. What is the cost of rent of dwellings generally occupied by the wage workers. $8 to $12 per month.
14. What is the cost of food or board per month. $20 to $25.
15. What is the cost of fuel. Wood, $5 per cord; coal, $9 to $13.
16. What is the cost of water for household purposes per month. $2 50.
18. How many poor people live in your county. Males, nearly all.
24. How many corporations (local) are in your county. 8.
25. Name them. Bank of Napa, I. O. O. F., Napa Water Company, Bank of St. Helena, St. Helena Water Company, St. Helena Gas Company, Napa Valley Wine Company, Napa Woolen Mills.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county (or township). Males, 500; females, 12 to 24.
8. What wages are paid to domestic servants per month. $10 to $15, with board.
13. How many Chinese laundries are in your county. About 30.
14. How many Chinese do they employ in your county. 400.
15. How many Chinese cultivate the soil in your county (or township). 8 or 10.
17. How many Chinese miners are in your county (or township). 300.
18. What wages do they earn. $1 per day, with board.

Form No. 8. Relating to Inmates of Jails and Other Reformatory Institutions.

1. How many inmates are in your county jail and other reformatory institutions in your county. Males, 19; females, 1; Chinese, 5.
2. What are their ages. Males, average, 30; females, 65.
5. How many of the inmates are employed. 6.

NEVADA COUNTY.

Statistical Statement made by Daniel Collins, Assessor of Nevada County.

FORM NO. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county or township contain. 647,730.
2. How many acres of land (exclusive of town lots) are under cultivation. 23,230.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 287,000.
4. How many acres of land (exclusive of town lots) are timber land. 225,000.
6. What is the maximum price per acre (exclusive of town lots). $15.
7. What is the minimum price per acre (exclusive of town lots). $2 50.
8. What is the average price per acre (exclusive of town lots). $4 13.
9. How many ranches are in your county (or township). 890.
10. How many ranch owners. 890.
13. How many have from twenty-five to fifty acres. 85.
14. How many have from fifty to one hundred acres. 180.
15. How many have from one hundred to two hundred and fifty acres. 322.
16. How many have from two hundred and fifty to five hundred acres. 208.
17. How many have from five hundred to one thousand acres. 75.
18. How many have from one thousand to two thousand five hundred acres. 7.
19. How many have from two thousand five hundred to five thousand acres. 1.
21. How many ranches are worked by owners. All.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county (or township) contain. 3,000.
29. What is their value. $45,000.
30. How many miles of fences are in your county (or township). 2,180, barbed wire and rail.
31. What is their cost per mile. $120.
32. What is the value of all the agricultural implements in your county (or township). $3,940.
33. How many labor-saving agricultural implements are in your county (or township). 20.

Relating to Farm Hands and Road Laborers.

42. What are the maximum wages paid (including board) per month. $25.
43. What are the minimum wages paid (including board) per month. $10.
44. What are the average wages paid (including board) per month. $12 50.
45. What industry of agriculture pays the maximum. Alfalfa.
46. What industry of agriculture pays the minimum. Wheat.
48. When unemployed in agriculture what industry do they pursue to gain a livelihood. Mining.
49. What are the maximum hours of labor per diem. 15.
50. What are the minimum hours of labor per diem. 12.
51. What are the average hours of labor per diem. 10.
55. How many road laborers are in your county (or township). 90.
56. What is the average wages paid to them. $2 50.
58. How many laborers (exclusive of Chinese) are in your county (or township) unemployed. 1,500.
59. How many of the unemployed are native Americans. Very few.
60. How many of the unemployed are foreigners. Mostly all.
61. Their nationality. From all parts.
62. What are their ages. From 25 to 60.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county (or township). Allow the hydraulic mines to be worked and drive out the Chinese.
70. How are the sanitary conditions of the lands in your county. Good.

FORM NO. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

7. How many bakers in the whole county (or township). 10.
8. How many brewers in the whole county (or township). 14.
9. How many blacksmiths in the whole county (or township). 200.
10. How many boiler-makers in the whole county (or township). 4.
11. How many brass molders in the whole county (or township). 3.
17. How many box (wood, packing) makers in the whole county (or township). 40.
18. How many cabinet-makers in the whole county (or township). 3.
21. How many carpenters and joiners in the whole county (or township). 250.
23. How many carriage and wagon makers in the whole county (or township). 7.
26. How many cigar-makers in the whole county (or township). 8.
27. How many confectioners in the whole county (or township). 8.
29. How many coopers in the whole county (or township). 3.

33. How many employés in dairies in the whole county (or township). 50.
39. How many iron molders in the whole county (or township). 9.
41. How many locksmiths in the whole county (or township). 4.
42. How many employés in limekilns in the whole county (or township). 5.
43. How many machinists in the whole county (or township). 160.
44. How many marble-cutters in the whole county (or township). 4.
47. How many pattern-makers in the whole county (or township). 3.
51. How many plumbers in the whole county (or township). 2.
54. How many saddlers and harness-makers in the whole county (or township). 6.
57. How many sash, door, and blind makers in the whole county (or township). 15.
58. How many shingle-makers in the whole county (or township). All Chinamen.
59. How many shoe-makers in the whole county (or township). 35.
60. How many soda water employés in the whole county (or township). 6.
61. How many stone-cutters in the whole county (or township). 15.
62. How many tailors in the whole county (or township). 12.
64. How many tinsmiths in the whole county (or township). 6.
65. How many upholsterers in the whole county (or township). 18.
66. How many wheelwrights in the whole county (or township). 10.
67. How many wine manufacturers in the whole county (or township). 7.
70. How many of the beforementioned professions are unemployed. 38.
71. Their nationality. Foreign.
72. Their ages. From 25 to 60.

Form No. 3. Relating to Mines and Miners (Chinese Excluded).

5. How many gold placer mines are in your county (or township). 257.
6. How many gold placer miners are in your county (or township). 2,500.
7. How many gold quartz mines are in your county (or township). 413.
8. How many gold quartz miners are in your county (or township). 2,500.
9. How many gold hydraulic mines are in your county (or township). 22.
10. How many gold hydraulic miners are in your county (or township). 2,500.
13. How many gravel mines are in your county (or township). Drift mines, 7.
14. How many gravel miners are in your county (or township). 2,500.
23. How many granite stone quarries are in your county (or township). 1.
25. How many limestone quarries are in your county (or township). 1.
31. How many miners in your county are unemployed. 400.
32. The cause. Closing down of hydraulic mines.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

1. How many miles of steam railroads in operation are in your county. 18.
2. How many employés of all kinds on above are in your county. 25.
9. How many miles of macadamized roads are in your county. 30.
10. How many men are engaged thereon in your county. 7.
11. How many stage drivers in your county. 9.
13. How many draymen hauling, etc., in your county. 4.
14. How many agents, railroad, stage, express, and steamboat, in your county. 7.
15. How many men are engaged in express companies in your county. 8.

Form No. 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

1. How many auctioneers are employed in your county. 5.
3. How many assayers and chemists are employed in your county. 1.
4. How many barbers are employed in your county. 23.
5. How many bookkeepers in all departments in your county. 12.
6. How many bricklayers in your county. 12.
7. How many clerks are employed in banking institutions in your county. 2.
8. How many clerks are employed in insurance offices in your county. 1.
10. How many clerks employed in general merchandising in your county. 40.
11. How many clerks are employed in county and town governments in your county. 2.
13. How many dentists are employed in your county (or town). 7.
14. How many draughtsmen are employed in your county (or town). 4.
16. How many dress and cloak makers in your county (or town). 35.
17. How many engravers in your county (or town). 3.
18. How many engineers (civil) in your county (or town). 5.
20. How many engineers (mining) in your county (or town). 120.
21. How many florists and gardeners in your county (or town). 4.
23. How many glaziers in your county (or town). 3.
27. How many hostlers in your county (or town). 18.
30. How many lumbermen in your county (or town). 23.
31. How many milliners in your county (or town). 6.
32. How many painters (house) in your county (or town). 40.
34. How many plasterers are employed in your county. 27.
35. How many printers are employed in your county. 16.
36. How many photographers are employed in your county. 6.

37. How many school teachers are employed in your county. 80.
38. How many seamstresses are employed in your county. 70.
39. How many servants (domestic) are employed in your county. 150.
40. How many telegraph operators are employed in your county. 3.
41. How many telegraph messenger boys are employed in your county. 2.
42. How many waiters (restaurant, hotel, etc.,) are employed in your county. 60.
43. How many watch-makers are employed in your county. 10.
46. How many wood carvers and turners are employed in your county. 2.
47. How many wood-cutters are employed in your county. All Chinese.

FORM NO. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county (or township). $2,217,540.
2. What is the total value of all the buildings in the towns of your county (or township). $1,115,200.
3. What is the total value of all the machineries used for mechanical and manufacturing purposes. $49,440.
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county (or township). Very small.
11. What percentage of dwellings are owned by them. 80 per cent.
12. What is the cost of rent of dwellings generally occupied by the wage workers. $8 to $10.
13. What is the cost of rent of rooms generally occupied by the wage workers. $2 per week.
14. What is the cost of food or board per month. $20 to $25.
15. What is the cost of fuel. Wood, $5 to $7 per cord.
16. What is the cost of water for household purposes per month. $2 50.
17. What is the cost of water for irrigation purposes. $1 50.

FORM NO. 7. RELATING TO CHINESE (EXCLUSIVELY).

1. How many Chinese are in your county (or township). Males, 1,800; females, 125.
7. How many of them are domestic servants. 367.
8. What wages are paid to domestic servants per week. $4; per month, $18; with board.
9. How many of them are cooks. 300.
10. What wages are paid to them per week. $7; per month, $30; with board.
11. How many are laundrymen. 130.
12. What wages do they earn per week. $10; per month, $45; with board.
13. How many Chinese laundries are in your county (or township). 25.
14. How many Chinese do they employ in your county (or township). 130.
15. How many Chinese cultivate the soil in your county (or township). 165; garden.
16. What wages are paid them per month, with board. $20.
18. What wages do they earn. $1 50 to $2; without board.
23. How much do they expend for rent, either per head or collectively, per month. $300.
24. How much do they expend for food per head or collectively per month. $7 will give a Chinaman a good living.
25. What percentage of the food are home products. 20.
26. What percentage of the food are imported from foreign countries. 80.
27. How much do they expend for clothing per head each year. Very little.
28. What percentage of the clothing is of American manufacture. 20.
29. What percentage of the clothing is imported. 80.
30. How much of their yearly earnings are sent out of the country. 50 per cent.
31. What percentage to the amount of earnings. 25.

FORM NO. 8. RELATING TO INMATES OF JAILS AND OTHER REFORMATORY INSTITUTIONS.

1. How many inmates are in your county jail and other reformatory institutions in your county. 9.
3. What are their nationalities. 2 English, 7 American.

PLUMAS COUNTY.

Statistical Statement made by E. P. Smith, Assessor of Plumas County.

Table showing the quantity and classes of real estate, the amount of improvements on each class, and the classes of personal property in the County of Plumas, for the year 1885, with the average and actual cash value of each kind of property.

DESCRIPTION OF PROPERTY—REAL ESTATE.	Value of Each Kind of Real Property, "A."	Total Value of all Descriptions of Real Estate, "B."
Real estate other than that below enumerated	$545,792 00	$1,580,164 00
Improvements on same where assessed to same owner	279.747 00	
City and town lots	33,900 00	
Improvements on same where assessed to same owner	160,091 00	
		Total Value of Personal Property, "E."
Mining claims	$302,684 00	$594,665 00
Improvements on same	164,300 00	
Telegraph lines, 50 miles	1,200 00	
		Total Value of all Property, "F."
Mining ditches	$92,450 00	$2,174,829 00

DESCRIPTION OF PROPERTY.	Number of Species, Pounds, Gallons, Tons, Etc.	Total Actual Cash Value of Each Class of Property, "C."
Money on hand or special deposit		$11,841 00
Beehives, number	120	300 00
Calves, number	1,017	11,420 00
Cattle, beef, number	322	10,640 00
Cattle, stock, number	1,420	21,625 00
Colts, number	484	11,720 00
Cows, thoroughbred, number	6	360 00
Cows, American, number	2,984	71.820 00
Farming utensils		5,320 00
Firearms		1,468 00
Fixtures of saloons, stores, and other business places		7,065 00
Furniture		36,640 00
Goats, common, number	40	50 00
Goods, wares, and merchandise		116,450 00
Oats and wheat, centals	4,930	5,940 00
Barley, centals	310	410 00
Harness, robes, saddles, etc.		7,450 00
Hay, tons	2,325	10.420 00
Hogs, number	1,222	6,026 00
Horses, thoroughbred, number	8	1,850 00
Horses, American, number	882	59,912 00
Horses, H. B., number	696	17,610 00
Jewelry or plate		1,965 00
Libraries, law, medical, and miscellaneous		1,870 00
Lumber		5,760 00
Machinery		46,225 00
Mules, number	42	2,430 00
Musical instruments		3,890 00
Oxen, number	54	1,980 00
Pianos	26	4,750 00
Poultry, dozen	632	3,150 00
Sewing machines		4,520 00
Sheep, common, number	520	1,760 00
Solvent credits after deduction of debts		26,356 00
Wagons and other vehicles, number	563	38,465 00
Watches, number	162	5,420 00
Wood, cords	850	1,060 00
Other property (enumerate it):		
Pipe and hose		18,300 00
Mining tools		5,440 00
Miscellaneous		4,987 00
Total		$257,700 00

SACRAMENTO COUNTY.

Statistical Statement made by the Assessor of Sacramento Connty.

Form No. 1. Relating to Agriculture.

1. How many acres of land (exclusive of town lots) does your county or township contain. 876,800.
2. How many acres of land (exclusive of town lots) are under cultivation. 497,642.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 100,000.
5. How many acres of land (exclusive of town lots) are open for preëmption. 20,000.
6. What is the maximum price per acre (exclusive of town lots). $800.
7. What is the minimum price per acre (exclusive of town lots). $2 50.
8. What is the average price per acre (exclusive of town lots). $20 73.
9. How many ranches are in your county (or township). 2,500.
10. How many ranch owners. 2,000.
11. How many have from three to ten acres. 143.
12. How many have from ten to twenty-five acres. 200.
13. How many have from twenty-five to fifty acres. 227.
14. How many have from fifty to one hundred acres. 304.
15. How many have from one hundred to two hundred and fifty acres. 1,067.
16. How many have from two hundred and fifty to five hundred acres. 375.
17. How many have from five hundred to one thousand acres. 100.
18. How many have from one thousand to two thousand five hundred acres. 50.
19. How many have from two thousand five hundred to five thousand acres. 20.
20. How many have five thousand acres and over. 14.
21. How many ranches are worked by owners. 1,800.
22. How many ranches are worked in shares between owner and renter. 700.
25. What is the maximum rent per acre. Half of crop.
26. What is the minimum rent per acre. Fourth of crop.
27. What is the average rent per acre. Third of crop.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county (or township) contain. Don't know.
29. What is their value. $4,707,851.
36. What percentage of ranch cultivators in your county (or township) use labor-saving machines. 100.

Relating to Farm Hands and Road Laborers.

49. What are the maximum hours of labor per diem. 16.
50. What are the minimum hours of labor per diem. 10.
51. What are the average hours of labor per diem. 13.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

3. How many employés in agricultural implements in the whole county (or township). 500. Hours constituting a day's work. 10.
7. How many bakers in the whole county (or township). 50. Hours constituting a day's work, maximum, 20; minimum, 10; average, 15.
8. How many brewers in the whole county (or township). 10. Hours constituting a day's work. 12.
9. How many blacksmiths in the whole county (or township). 150. Hours constituting a day's work. 10.
10. How many boiler-makers in the whole county (or township). 5. Hours constituting a day's work. 10.
12. How many bookbinders in the whole county (or township). 1. Hours constituting a day's work. 10.
13. How many brick-makers in the whole county (or township). 5. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9.
14. How many broom-makers in the whole county (or township). 3. Hours constituting a day's work, maximum, 18; minimum, 10; average, 14.
18. How many cabinet-makers in the whole county (or township). 30. Hours constituting a day's work. 10.
21. How many carpenters and joiners in the whole county (or township). 200. Hours constituting a day's work, maximum, 10; minimum, 9; average, 9½.
22. How many carpenters (ship) in the whole county (or township). 15. Hours constituting a day's work, maximum, 10; minimum, 9; average, 9½.
23. How many carriage and wagon makers in the whole county (or township). 150. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9.
24. How many calkers (ship) in the whole county (or township). 3. Hours constituting a day's work. 10.
26. How many cigar-makers in the whole county (or township). 20.
27. How many confectioners in the whole county (or township). 5.

35. How many glove-makers in the whole county (or township). 3. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9. Males, 1; females, 2.
37. How many gunsmiths in the whole county (or township). 3. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11.
41. How many locksmiths in the whole county (or township). 3. Hours constituting a day's work, maximum, 12; minimum, 10; average. 11.
48. How many employés in paper mills in the whole county (or township). 150. Hours constituting a day's work, 12. Males, 120; females, 30.
60. How many soda works employés in the whole county (or township). 3. Hours constituting a day's work, 10.
61. How many stone-cutters in the whole county (or township). 30. Hours constituting a day's work, maximum, 10; minimum, 9; average, 9½.
63. How many tanners in the whole county (or township). 50. Hours constituting a day's work, 10.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

5. How many miles of street railroads (horse-power) are in your county. 3½. Number of men, 14. Average hours per day, 15. Average number of months engaged per annum, 12.
7. How many conductors are engaged thereon in your county. 6. Average hours per day, 14. Average number of months engaged per annum, 12.
8. How many drivers are engaged thereon in your county. 6. Average hours per day, 15. Average number of months engaged per annum, 12.
11. How many stage drivers in your county. 2. Average hours per day, 12.
13. How many draymen hauling, etc., in your county. 20.
14. How many agents, railroad, stage, express, and steamboat, in your county. 150.
15. How many men are engaged in express companies in your county. 20.

Form No. 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

1. How many auctioneers are employed in your county. 3.
4. How many barbers are employed in your county. 60.
5. How many bookkeepers in all departments in your county. 400. Males, 375; females, 25. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9.
6. How many bricklayers in your county. 75. Hours constituting a day's work, maximum, 10; minimum, 9; average, 9½.
7. How many clerks are employed in banking institutions in your county. 12. Hours constituting a day's work, maximum, 6; minimum, 8; average, 7.
8. How many clerks are employed in insurance offices in your county. 50. Males, 45; females, 5. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9.
9. How many clerks are employed in lawyers' offices in your county. 30. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10.
10. How many clerks employed in general merchandise in your county. 500. Males, 400; females, 100. Hours constituting a day's work, maximum, 14; minimum, 12; average, 13.
11. How many clerks are employed in county and town governments in your county. 40. Hours constituting a day's work, 7.
12. How many cooks are employed in your county (or town). 300. Males, 250; females, 50. Hours constituting a day's work, maximum, 20; minimum, 15; average, 17½.
13. How many dentists are employed in your county (or town). 40.
14. How many draughtsmen are employed in your county (or town). 4.
15. How many draymen are employed in your county (or town). 75. Hours constituting a day's work, 10.
16. How many dress and cloak makers in your county (or town). 150. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11.
18. How many engineers (civil) in your county (or town). 3.
19. How many engineers (stationary engines) in your county (or town). 100. Hours constituting a day's work, maximum, 10; minimum, 9; average, 9½.
20. How many engineers (mining) in your county (or town). 10. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11.
21. How many florists and gardeners in your county (or town). 10.
22. How many fishermen in your county (or town). 50. Hours constituting a day's work, maximum, 20; minimum, 12; average, 18.
24. How many journalistic editors in your county (or town). 20. Males, 18; females, 2. Hours constituting a day's work, maximum, 24; minimum, 10; average, 17.
25. How many journalistic reporters in your county (or town). 30. Males, 25; females, 5. Hours constituting a day's work, maximum, 20; minimum, 10; average, 15.
26. How many hod carriers in your county (or town). 60. Hours constituting a day's work, maximum, 10; minimum, 9; average, 9½.
27. How many hostlers in your county (or town). 200. Hours constituting a day's work, maximum, 18; minimum, 12; average, 15.
28. How many laundrymen in your county (or town). 200. Males, 150; females, 50. Hours constituting a day's work, maximum, 18; minimum, 10; average, 14.
29. How many longshoremen in your county (or town). 100. Hours constituting a day's work, maximum, 18; minimum, 10; average, 14.

30. How many lumbermen in your county (or town). 80. Hours constituting a day's work, 10.
31. How many milliners in your county (or town). 40. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11.
32. How many painters (house) in your county (or town). 200. Hours constituting a day's work, maximum, 10; minimum, 9; average, 9½.
33. How many fresco painters are employed in your county. 10. Hours constituting a day's work, maximum, 10; minimum, 9; average, 9½.
34. How many plasterers are employed in your county. 150. Hours constituting a day's work, maximum, 10; minimum, 9; average, 9½.
35. How many printers are employed in your county. 200. Males, 150; females, 50. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9.
36. How many photographers are employed in your county. 40. Males, 35; females, 5. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11.
37. How many school teachers are employed in your county. 200. Males, 125; females, 75. Hours constituting a day's work, maximum, 6; minimum, 5; average, 5½.
38. How many seamstresses are employed in your county. 100. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11.
39. How many servants (domestic) are employed in your county. 700.
40. How many telegraph operators are employed in your county. 40. Males, 35; females, 5. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10.
41. How many telegraph messenger boys are employed in your county. 10. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. 200. Males, 175; females, 25.
43. How many watch-makers are employed in your county. 50. Hours constituting a day's work, maximum, 10; minimum, 7; average, 8½.
44. How many well-borers (artesian) are employed in your county. 10. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11.
46. How many wood carvers and turners are employed in your county. 10. Hours constituting a day's work, maximum, 10; minimum, 9; average, 9½.
48. How many artisans not above enumerated are employed in your county. 500. Males, 450; females, 50. Hours constituting a day's work, maximum, 12; minimum, 9; average, 10½.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county (or township). $29,638,420.
2. What is the total value of all the buildings in the towns of your county (or township). $4,697,851.
3. What is the total value of all the machineries used for mechanical and manufacturing purposes. $307,775.
12. What is the cost of rent of dwellings generally occupied by the wage workers. $15 per month.
14. What is the cost of food or board. $4 to $5 per week.
15. What is the cost of fuel. Wood, $5 to $8; coal, $8 to $20 per ton.
16. What is the cost of water for household purposes per month. $2.
17. What is the cost of water for irrigation purposes. $20 per year.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county (or township). Males, 3,000.
8. What wages are paid to domestic servants per week. $2 to $5; per month, $8 to $20; without board.
13. How many Chinese laundries are in your county. 50.
14. How many Chinese do they employ in your county. 150.
15. How many Chinese cultivate the soil in your county. 500.

Form No. 8. Relating to Inmates of Jails and other Reformatory Institutions.

1. How many inmates are in your county jail and other reformatory institutions in your county. Males, 32; females, 2; Chinese, 3.
2. What are their ages. Males, 18 to 66; females, 24 to 25; Chinese, 40, 28, and 30.
3. What are their nationalities. American, 9; Irish, 1; Dutch, 1; French, 1.
4. What are their conditions and sanitary habits. Good.
5. How many of the inmates are employed. 13.

SAN BENITO COUNTY.

Statistical Statement made by H. Dowdy, Assessor of San Benito County.

Form No. 1. Relating to Agriculture.

1. How many acres of land (exclusive of town lots) does your county or township contain. 400,000.
2. How many acres of land (exclusive of town lots) are under cultivation. 48,000.

3. How many acres of land (exclusive of town lots) are unfit for cultivation. 250,000.
4. How many acres of land (exclusive of town lots) are timber land. None for saw or lumber.
5. How many acres of land (exclusive of town lots) are open for preëmption. 40,000; unfit for cultivation.
6. What is the maximum price per acre (exclusive of town lots). $300; improved.
7. What is the minimum price per acre (exclusive of town lots). $2 50.
8. What is the average price per acre (exclusive of town lots). About $25.
9. How many ranches are in your county (or township). 2,000.
10. How many ranch owners. 1,800.
11. How many have from three to ten acres. 40.
12. How many have from ten to twenty-five acres. 30.
13. How many have from twenty-five to fifty acres. 100.
14. How many have from fifty to one hundred acres. 150.
15. How many have from one hundred to two hundred and fifty acres. 1,150.
16. How many have from two hundred and fifty to five hundred acres. 300.
17. How many have from five hundred to one thousand acres. 8.
18. How many have from one thousand to two thousand five hundred acres. 4.
19. How many have from two thousand five hundred to five thousand acres. 8.
20. How many have five thousand acres and over. 10.
21. How many ranches are worked by owners. 1,600.
22. How many ranches are worked in shares between owner and renter. 20.
24. How many ranches are rented. 75.
25. What is the maximum rent per acre. $10.
26. What is the minimum rent per acre. Grazing land, 50 cents.
27. What is the average rent per acre. $3.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county (or township) contain. About 4,000.
29. What is their value. $350,000.
30. How many miles of fences are in your county (or township). 50,000.
31. What is their cost per mile. Average, $160.
32. What is the value of all the agricultural implements in your county (or township). $60,000.
33. How many labor-saving agricultural implements are in your county (or township). 350.
34. What is their value. $25,000.
36. What percentage of ranch cultivators in your county (or township) use labor-saving machines. 75.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county (or township). At different times, 200 to 300.
38. What are their ages. From 16 to 60.
40. How many of the laborers are females. 50.
41. What are their ages. From 14 to 40.
42. What are the maximum wages paid (including board) per month. $50.
43. What are the minimum wages paid (including board) per month. $20.
44. What are the average wages paid (including board) per month. $26.
47. How many months in the year are laborers generally employed. 7.
49. What are the maximum hours of labor per diem. 12, in seeding and harvesting.
50. What are the minimum hours of labor per diem. 12.
51. What are the average hours of labor per diem. 12.
55. How many road laborers are in your county (or township). 25.
56. What are the wages paid them. $1 50.
57. What is the laborer's condition in general. Morally, fair; physically, good; mentally, average.
58. How many laborers (exclusive of Chinese) are in your county (or township) unemployed. 400.
59. How many of the unemployed are native Americans. 200.
60. How many of the unemployed are foreigners. 200.
61. Their nationality. Bulgarians, Servians, Dutch, Irish, and Portuguese.
62. What are their ages. From 18 to 60.
63. How many under fifteen. Few.
64. How many are females. 10 per cent.
70. How are the sanitary conditions of the lands in your county. Good.

FORM NO. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

3. How many employés in agricultural implements in the whole county (or township). 25. Hours constituting a day's work, maximum, 10; minimum, 8. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
7. How many bakers in the whole county (or township). 20. Hours constituting a day's work, maximum, 15; minimum, 10. Wages paid, maximum, $1 50; with board.

8. How many brewers in the whole county (or township). 6. Hours constituting a day's work, 10. Wages paid, $2; with board.
9. How many blacksmiths in the whole county (or township). 50. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; without board.
18. How many cabinet-makers in the whole county (or township). 25. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $3; without board.
21. How many carpenters and joiners in the whole county (or township). 50. Hours constituting a day's work, 10. Wages paid, $3; without board.
22. How many carpenters (ship) in the whole county (or township). 30. Hours constituting a day's work, 10. Wages paid, $2 50; without board.
33. How many employés in dairies in the whole county (or township). 75. Hours constituting a day's work, 12. Wages paid, $25; with board.
43. How many machinists in the whole county (or township). 20. Hours constituting a day's work, 10. Wages paid, $3; with board.
46. How many millers in the whole county (or township). 2. Hours constituting a day's work, 12. Wages paid, $3; with board.
54. How many saddlers and harness-makers in the whole county (or township). 5. Hours constituting a day's work, 10. Wages paid, $2 50; without board.
58. How many shingle-makers in the whole county (or township). 30. Hours constituting a day's work, 10. Wages paid, maximum, $2 50; average, $2; without board.
62. How many tailors in the whole county (or township). 12. Hours constituting a day's work, maximum, 12; minimum, 10. Wages paid, maximum, $2 50; average, $2; without board.
64. How many tinsmiths in the whole county (or township). 10. Hours constituting a day's work, 10. Wages paid, maximum, $3; average, $2; without board.
66. How many wheelwrights in the whole county (or township). 14. Hours constituting a day's work, 10. Wages paid, $2 50; without board.
70. How many of the aforementioned professions are unemployed. 20 per cent.
72. Their ages. From 21 to 60.
74. How do they manage to subsist. While at work, they save enough to keep them when idle.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

1. How many miles of steam railroads in operation are in your county. 17½. Number of men, 24. Average hours per day, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $100; minimum, $30; without board.
7. How many conductors are engaged thereon in your county. 1. Average hours per day, 12. Average number of months engaged per annum, 12. Wages paid, $100 per month.
11. How many stage drivers in your county. 2. Average hours per day, 12. Average number of months engaged per annum, 12. They own the lines.
12. How many teamsters hauling, etc., in your county. 10. Miles of roads, 1. Average hours per day, 12. Average number of months engaged per annum, 10.
14. How many agents, railroad, stage, express, and steamboat, in your county. 3. Average hours per day, 10. Average number of months engaged per annum, 12.

Form No. 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

4. How many barbers are employed in your county. 6. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid per day, maximum, $2 50; average, $2; without board.
5. How many bookkeepers in all departments in your county. 25. Hours constituting a day's work, 10. Wages paid per month, $75; without board.
7. How many clerks are employed in banking institutions in your county. 2. Hours constituting a day's work, 8. Wages paid per month, $100; without board.
10. How many clerks employed in general merchandising in your county. 20. Hours constituting a day's work, 10. Wages paid per month, $65; without board.
12. How many cooks are employed in your county. 75. Males, 25; females, 50. Hours constituting a day's work, 12. Wages paid to males per month, maximum, $30; minimum, $10; with board. Wages paid to females, maximum, $20; minimum, $10; average, $15; with board.
13. How many dentists are employed in your county. 2.
15. How many draymen are employed in your county. 2.
19. How many engineers (stationary engines) in your county. 2. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid per day, $4.
24. How many journalistic editors in your county. 2.
27. How many hostlers in your county. 8. Hours constituting a day's work, 12. Wages paid per month, $30.
28. How many laundrymen in your county (or town). None but Chinamen.
31. How many milliners in your county (or town). 20. Hours constituting a day's work, 10. Average number months engaged per annum, 12. Wages paid, maximum, $1 50; average, $1 25.

32. How many painters (house) in your county (or town). 14. Hours constituting a day's work, 10. Average number of months engaged per annum, 10. Wages paid, $3.
33. How many fresco painters are employed in your county. 4. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $3.
34. How many plasterers are employed in your county. 12. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $3.
35. How many printers are employed in your county. 6. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $2 50.
36. How many photographers are employed in your county. 1.
37. How many school teachers are employed in your county. 65. Males, 20; females, 45. Hours constituting a day's work, 8. Average number of months engaged per annum, 9. Wages paid, males, $75; females, maximum, $85; average, $70; without board.
39. How many servants (domestic) are employed in your county. 50. Hours constituting a day's work, 12. Wages paid, males, maximum, $20; average, $15. Females, maximum, $20; average, $15; with board.
40. How many telegraph operators are employed in your county. 2. Hours constituting a day's work, 10. Wages paid, $2 50.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. 14. Males, 8; females, 6. Hours constituting a day's work, maximum, 14; average, 12. Wages paid, males, $30; females, maximum, $25; average, $20; with board.
43. How many watch-makers are employed in your county. 2.
47. How many wood-cutters are employed in your county. 25. Average number of months engaged per annum, 3. Wages paid, $1 60.
49. How many of foregoing mentioned professions are unemployed. Males, 20 per cent.

Form No 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county (or township). Males, 87; females, 3.
7. How many of them are domestic servants. 50.
8. What wages are paid to domestic servants per month. $15; with board.
9. How many of them are cooks. 50.
11. How many are laundrymen. 50.
13. How many Chinese laundries are in your county (or township). 15.
14. How many Chinese do they employ in your county (or township). 50.
23. How much do they expend for rent, either per head or collectively, per month. $1.

Form No. 8. Relating to Inmates of Jails and Other Reformatory Institutions.

1. How many inmates are in your jail and other reformatory institutions in your county. 3.
2. What are their ages. 35 to 40.
3. What are their nationalities. American.
4. What are their conditions and sanitary habits. Good.

SAN BERNARDINO COUNTY.

Statistical Statement made by the Assessor of San Bernardino County.

Form No. 1. Relating to Agriculture.

1. How many acres of land assessed in your county. 501,137.
2. How many acres of land are under cultivation. About 135,000.
3. How many acres of land are unfit for cultivation. Fully nine tenths of the land.
4. How many acres of land are timber land. No means of ascertaining.
5. How many acres of land are open for preëmption. County not surveyed.
6. What is the maximum assessed value per acre. $159.
7. What is the minimum price per acre. 60 cents.
8. What is the average price per acre. $7 39.
9. How many ranches are in your county. 12.
10. How many ranch owners. 3. (Ranches are subdivided into small lots.)
25. What is the maximum rent per acre. $2 50.
26. What is the minimum rent per acre. 50 cents.
27. What is the average rent per acre. $2.

Relating to Farm Hands and Road Laborers.

42. What are the maximum wages paid (including board) per month. $40.
43. What are the minimum wages paid (including board) per month. $20.
44. What are the average wages paid (including board) per month. $25.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Yes, in nearly every instance.

58. How many laborers (exclusive of Chinese) are in your county (or township) unemployed. Very few.

65. What are the causes of their idleness. (Please state everything you know about it). There is no necessity for any man to be idle in this county—all who are willing to labor can find employment.

FORM NO. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

7. How many bakers in the whole county. 18. Hours constituting a day's work, 10. Wages paid, maximum, $50; minimum, $30; average, $35.

8. How many brewers in the whole county. 1 brewery; employs 4 men, at salaries from $50 to $60 per month.

9. How many blacksmiths in the whole county. 63. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50.

12. How many bookbinders in the whole county. 2 binders, but no bindery.

13. How many brick-makers in the whole county. 4. 27 hands employed, at $1 per day.

14. How many broom-makers in the whole county. 1. Hours constituting a day's work, 10. Piece work.

17. How many box (wood, packing) makers in the whole county. 2 planing mills, engaged in manufacturing.

18. How many cabinet-makers in the whole county. 21. Hours constituting a day's work. 10. Wages paid, maximum, $3 50; minimum, $2; average, $2 50.

20. How many canneries (fruit, etc.) employés in the whole county. Between 500 and 600; work by the hour or box; mostly girls.

21. How many carpenters and joiners in the whole county. 39. Hours constituting a day's work. 10. Wages paid, maximum, $4; minimum, $2 50; average, $3.

23. How many carriage and wagon makers in the whole county. 15. Hours constituting a day's work. 10. Wages paid, $3.

26. How many cigar-makers in the whole county. 1. Hours constituting a day's work, 10. Wages paid, $10 to $15 per thousand.

27. How many confectioners in the whole county. 3.

32. How many employés in distilleries in the whole county. 19. Hours constituting a day's work, 10. Wages paid, maximum, $75; minimum, $50; average, $60.

33. How many glue-makers in the whole county. 27. Hours constituting a day's work, 12. Wages paid, maximum, $50; minimum, $30; average, $35.

37. How many gunsmiths in the whole county. 1. Hours constituting a day's work, 10. Not a wage worker.

42. How many employés in limekilns in the whole county. 13. Hours constituting a day's work, 10. Wages paid, maximum, $50; minimum, $25; average, $30.

44. How many marble-cutters in the whole county. 1. Hours constituting a day's work, 10. Not a wage worker.

45. How many employés in watch factories in the whole county. 9. Hours constituting a day's work, 10. Wages paid, $75.

46. How many millers in the whole county. 11, including saw-mills. Proprietors, and not wage workers.

51. How many plumbers in the whole county. 9. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50.

54. How many saddlers and harness-makers in the whole county. 13. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50.

57. How many sash, door, and blind-makers in the whole county (or township). 3. Hours constituting a day's work, 10. Wages paid, $4.

58. How many shingle-makers in the whole county (or township). 4. Hours constituting a day's work, 10.

59. How many shoe-makers in the whole county (or township). 17. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $1 50; average, $2.

60. How many soda works employés in the whole county (or township). 2. Hours constituting a day's work, 10. Wages paid, maximum, $2 50; minimum, $2; average, $2.

61. How many stone-cutters in the whole county (or township). 2. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $2 50.

62. How many tailors in the whole county. 7. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 25.

64. How many tinsmiths in the whole county (or township). 14. Hours constituting a day's work, 10. Wages paid, $2 50.

65. How many upholsterers in the whole county (or township). 5. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2; average, $3.

66. How many wheelwrights in the whole county (or township). 23. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $3; average, $3 50.

67. How many wine manufacturers in the whole county (or township). 9. Hours constituting a day's work, 10. Principals or proprietors not wage workers.

FORM NO. 3. RELATING TO MINES AND MINERS (CHINESE EXCLUDED).

3. How many coal mines are in your county (or township). 1; not worked.

6. How many gold placer mines are in your county (or township). None now worked.

9. How many gold hydraulic mines are in your county (or township). 1; not now worked.
11. How many silver mines are in your county. Hundreds of locations. Seven that are paying.
12. How many silver miners are in your county. Between 700 and 800. Number of miners, 750. Hours constituting a day's work, 12. Number of months employed in the year, 12. Wages per day, maximum, $4; minimum, $2; average, $3 50.
17. How many marble quarries are in your county. 2; not worked.

FORM NO. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

1. How many miles of steam railroads in operation in your county. 363.
11. How many stage drivers in your county. 8. Wages paid, maximum, $60; minimum, $40; average, $45.
13. How many draymen hauling, etc., in your county. 10. Not wage workers.
14. How many agents, railroad, stage, express, and steamboat, in your county. 33. Wages paid, maximum, $75; minimum, $40; average, $60.

FORM NO. 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

1. How many auctioneers are employed in your county. 2. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Receive a per cent on sales.
2. How many advertising agents are employed in your county. 8 or 9. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $75 per month.
3. How many assayers and chemists are employed in your county. 47. Hours constituting a day's work, 16. Average number of months engaged per annum, 12. Wages paid, $3 per day.
4. How many barbers are employed in your county. 25. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $75 per month.
5. How many bookkeepers in all departments in your county. 75. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $3; average, $3 50 per day.
7. How many clerks are employed in banking institutions in your county. 10. Hours constituting a day's work, 6. Average number of months engaged per annum, 12. Wages paid, $6 per day.
8. How many clerks are employed in insurance offices in your county. 3. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $60.
10. How many clerks employed in general merchandising in your county. 167. Males, 150; females, 17. Hours constituting a day's work, 14. Average number of months engaged per annum, 12. Wages paid to males, $50. Wages paid to females, $26.
11. How many clerks are employed in county and town governments in your county. 8. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $2; average, $2 50.
13. How many dentists are employed in your county. 5. Not wage workers.
14. How many draughtsmen are employed in your county. 4.
15. How many draymen are employed in your county. 10. Not employed by the day; work by the job.
16. How many dress and cloak makers in your county. 11. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $26 per month.
18. How many engineers (civil) in your county. 17. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $6.
19. How many engineers (stationary engines) in your county. 7. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $3; average, $3 50.
21. How many florists and gardeners in your county. 3. Proprietors; not wage workers.
23. How many glaziers in your county. 12. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3 50; minimum, $2 50; average, $3.
24. How many journalistic editors in your county. 9. Hours constituting a day's work, 10. Editors are proprietors.
25. How many journalistic reporters in your county. 15. Hours constituting a day's work, 10. Average number of months engaged per annum, 10. Wages paid, maximum, $80; minimum, $70; average, $75.
26. How many hod carriers in your county. 100. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $30; minimum, $25; average, $27; per month.
27. How many hostlers in your county. 50. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $40.
28. How many laundrymen in your county. 3. Work by the dozen or piece.

30. How many lumbermen in your county. 9. They are proprietors and not wage workers.
31. How many milliners in your county. 11. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $1.
32. How many painters (house) in your county. 43. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $2; average, $2 50.
33. How many fresco painters are employed in your county. 3. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $5; minimum, $3; average, $4.
34. How many plasterers are employed in your county. 8. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $2; average, $2 50.
35. How many printers are employed in your county. 35. Males, 32; females, 3. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, males, maximum, $72; minimum, $60; average, $65. Females, $60.
36. How many photographers are employed in your county. 5. Not wage workers—proprietors.
37. How many school teachers are employed in your county. 70. Males, 15; females, 55. Hours constituting a day's work, 6. Wages paid, males, maximum, $125; minimum, $60; average, $73 20. Females, maximum, $90; minimum, $55; average, $62.
40. How many telegraph operators are employed in your county. 31. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $75; minimum, $60; average, $65.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. 75. Males, 60; females, 15. Hours constituting a day's work, maximum, 16; minimum, 12; average, 12. Average number of months engaged per annum, 12. Wages paid, males, maximum, $45; minimum, $30; average, $35. Females, $1 per day.
44. How many well-borers (artesian) are employed in your county. 30. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $2.
47. How many wood-cutters are employed in your county. About 100. Wages paid, $1 50 to $2 per cord.

FORM NO. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county. $3,438,212.
2. What is the total value of all the buildings in your county. $1,809,055.
10. How are the sanitary conditions of the dwellings of the wage workers. Excellent.
11. What percentage of dwellings are owned by them. Fully 75.
12. What is the cost of rent of dwellings generally occupied by the wage workers. $8 to $20 per month.
13. What is the cost of rent of rooms generally occupied by the wage workers. $1 50 to $4 per week.
14. What is the cost of food or board per month. Average, $20.
15. What is the cost of fuel. Wood, $6 to $9 per cord.
16. What is the cost of water for household purposes per month. Free.
17. What is the cost of water for irrigation purposes. $3 to $5 per acre.
18. How many poor people live in your county. Males, 9; females, 10. Nationality, 12 Spanish; 2 Irish; 5 unknown.
22. What are their conditions. Sanitary, fair; morally, good.
24. How many corporations (local) are in your county. The Riverside Land and Irrigating Company, Bear Valley Land and Water Company, Redlands Water Company, Farmers' Exchange Bank, North Fork Santa Ana Water Company, Riverside Bank, Alvord Mining Company, Oro Grande Mill and Mining Company.

FORM NO. 7. RELATING TO CHINESE (EXCLUSIVELY).

1. How many Chinese are in your county. Males, 371; females, 3.

FORM NO. 8. RELATING TO INMATES OF JAILS AND OTHER REFORMATORY INSTITUTIONS.

1. How many inmates are in your county jail and other reformatory institutions in your county. 28.
5. How many of the inmates are employed. 2.
6. What does their employment consist of. Working on the streets.
7. To what extent does their employment come in competition with the labor of mechanics, artisans, and all other white laborers outside of reformatory institutions. Not any.

SAN DIEGO COUNTY.

Statistical Statement made by M. D. Hamilton, Assessor of San Diego County.

FORM NO. 1. RELATING TO AGRICULTURE.

1. How many acres of land does your county contain. 9,000,000.
2. How many acres of land are under cultivation. 50,553.
3. How many acres of land are unfit for cultivation. As now supposed, 3,000,000.
4. How many acres of land are timber land. 22,000.
5. How many acres of land are open for preëmption. 250,000.
6. What is the maximum price per acre. $500.
7. What is the minimum price per acre. $2 50.
8. What is the average price per acre. $15.
9. How many ranches are in your county. 2,200.
10. How many ranch owners. 2,000.
11. How many have from three to ten acres. 150.
12. How many have from ten to twenty-five acres. 275.
13. How many have from twenty-five to fifty acres. 160.
14. How many have from fifty to one hundred acres. 90.
15. How many have from one hundred to two hundred and fifty acres. 1,000.
16. How many have from two hundred and fifty to five hundred acres. 250.
17. How many have from five hundred to one thousand acres. 160.
18. How many have from one thousand to two thousand five hundred acres. 70.
19. How many have from two thousand five hundred to five thousand acres. 8.
20. How many have five thousand acres and over. 37.
21. How many ranches are worked by owners. 1,050.
22. How many ranches are worked in shares between owner and renter. 250.
23. How many ranches are worked in shares between owner and laborers. 50.
24. How many ranches are rented. 100.
25. What is the maximum rent per acre. One fifth in sack or bale.
26. What is the minimum rent per acre. 7 cents.
27. What is the average rent per acre. About one fifth product.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county contain. About 2,000.
29. What is their value. $300,000.
32. What is the value of all the agricultural implements in your county. $85,000.
36. What percentage of ranch cultivators in your county use labor-saving machines. 90 per cent.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county. 300 to 400.
38. What are their ages. From 18 to 40.
42. What are the maximum wages paid (including board) per month. $40.
43. What are the minimum wages paid (including board) per month. $20.
44. What are the average wages paid (including board) per month. $30.
45. What industry of agriculture pays the maximum. Wheat.
46. What industry of agriculture pays the minimum. Corn.
47. How many months in the year are laborers generally employed. 12.
49. What are the maximum hours of labor per diem. 12.
50. What are the minimum hours of labor per diem. 8.
51. What are the average hours of labor per diem. 10.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Sometimes; not generally.
57. What is the laborer's condition in general. Morally, good; physically, generally good; mentally, highest degree.

FORM NO. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

7. How many bakers in the whole county. 6. Hours constituting a day's work, 10. Wages paid, $2; with board.
8. How many brewers in the whole county. 4. Hours constituting a day's work, 10. Wages paid, $3; with board.
9. How many blacksmiths in the whole county. 56. Hours constituting a day's work, 10. Wages paid, $3 50; without board.
10. How many boiler-makers in the whole county. 1. Hours constituting a day's work. 10. Wages paid, $4; without board.
12. How many bookbinders in the whole county. 1. Hours constituting a day's work, 10. Wages paid, $3; without board.
13. How many brick-makers in the whole county. 155. Hours constituting a day's work, 10. Wages paid, $3; without board.

18. How many cabinet-makers in the whole county. 6. Hours constituting a day's work, 10. Wages paid, $3 50; without board.
21. How many carpenters and joiners in the whole county. 800 to 1,000. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
33. How many employés in dairies in the whole county. 20. Hours constituting a day's work, 8. Wages paid, $1 25; with board.
39. How many iron molders in the whole county. 6. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2 50; average, $3 25; without board.
42. How many employés in limekilns in the whole county. 10. Hours constituting a day's work, 12. Wages paid, $3; without board.
43. How many machinists in the whole county. 46. Hours constituting a day's work, 10. Wages paid, $3; without board.
44. How many marble cutters in the whole county. 1. Hours constituting a day's work, 10. Wages paid, $4; without board.
46. How many millers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, $4; without board.
47. How many pattern-makers in the whole county. 3. Hours constituting a day's work, 10. Wages paid, $5; without board.
49. How many potters in the whole county. 5. Hours constituting a day's work, 10. Wages paid, $4; without board.
51. How many plumbers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, $3; without board.
54. How many saddlers and harness-makers in the whole county. 20. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2 50; average, $3; without board.
56. How many salt-makers in the whole county. 75 to 100. Hours constituting a day's work, 10. Wages paid, maximum, $2; minimum, $1; average, $1 50; with board.
57. How many sash, door, and blind makers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, $3; without board.
59. How many shoe-makers in the whole county. 12. Hours constituting a day's work, 10. Wages paid, $2 50; without board.
61. How many stone-cutters in the whole county. 8. Hours constituting a day's work, 10. Wages paid, $2 50.
62. How many tailors in the whole county. 8. Hours constituting a day's work, 10. Wages paid, $2 50.
63. How many tanners in the whole county. 2. Hours constituting a day's work, 10. Wages paid, $3.
64. How many tinsmiths in the whole county. 7. Hours constituting a day's work, 10. Wages paid, $3.
65. How many upholsterers in the whole county. 8. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2 50; average, $2 75.

Form No. 3. Relating to Mines and Miners (Chinese Excluded).

3. How many coal mines are in your county. 6. Number of mines, 1. Hours constituting a day's work, 10. Number of months employed in the year, 12. Wages paid, $3; without board.
7. How many gold quartz mines are in your county. 6.
8. How many gold quartz miners are in your county. 50. Wages paid, $3; without board.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

1. How many miles of steam railroads are in operation in your county. 268.93.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county. $5,560,000.
2. What is the total value of all buildings in the towns of your county. $1,672,000.
3. What is the total value of all machineries used for mechanical and manufacturing purposes. $22,000.
9. How are the sanitary conditions of the workshops of mechanics and manufacturers. Good.
10. How are the sanitary conditions of the dwellings of the wage workers. Good.
11. What percentage of dwellings are owned by them. About one third to one half.
12. What is the cost of rent of dwellings generally occupied by the wage workers. $10 to $15.
14. What is the cost of food or board per month. $20 to $24.
15. What is the cost of fuel. Wood, $8 per cord; coal, $12 to $15 per ton.
16. What is the cost of water for household purposes per month. Family of about 4, $2 50.
24. How many corporations (local) are in your county. 4.
25. Name them. Consolidated National Bank, First National Bank, San Diego Gas Company, San Diego Water Company.
26. Name capital stock of each. Consolidated National Bank, $100,000; First National Bank, $50,000; San Diego Gas Company, $24,000; San Diego Water Company, $50,000.
28. Total amount of hands employed in each. Consolidated National Bank, 5; First National Bank, 4; San Diego Gas Company, 4; San Diego Water Company, 6.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county. Males, about 275; females, about 30.
2. What are their conditions? Good.
3. What are their social habits. Rather good.
4. What are their sanitary habits. Good as any Chinamen.
7. How many of them are domestic servants. About 100.
8. What wages are paid to domestic servants per week. $4 to $6; per month, $30 to $35; with board.
11. How many are laundrymen. 75 to 100.
12. What wages do they earn per week. $3 to $5; per month, $15 to $20; with board.
13. How many Chinese laundries are in your county. About 22.
14. How many Chinese do they employ in your county. 75 to 100.
15. How many Chinese cultivate the soil in your county. 100 to 125.
16. What wages are paid them per month with board. $24 to $30.
23. How much do they expend for rent. Perhaps $1 50.
24. How much do they expend for food per head. Perhaps $5.
32. To what extent does their employment come in competition with the white industrial classes. Don't see that the competition affects any one, as there is plenty for all to do.

Form No. 8. Relating to Inmates of Jails and Other Reformatory Institutions.

1. How many inmates are in your county jail and other reformatory institutions in your county. 22.
3. What are their nationalities. Mexicans, Indians, Irish, and Americans.
6. What does their employment consist of. Road work.

SAN JOAQUIN COUNTY.

Statistical Statement made by M. Garnett, Assessor of San Joaquin County.

Form No. 1. Relating to Agriculture.

1. How many acres of land (exclusive of town lots) does your county contain. 876,000.
2. How many acres of land (exclusive of town lots) are under cultivation. About 650,000.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. About 100,000.
5. How many acres of land (exclusive of town lots) are open for preëmption. About 50,000.
6. What is the maximum price per acre (exclusive of town lots). $500.
7. What is the minimum price per acre (exclusive of town lots). $1.
8. What is the average price per acre (exclusive of town lots). About $15.
25. What is the maximum rent per acre. Third of crop, delivered.
26. What is the minimum rent per acre. Fourth of crop, delivered.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county contain. Value, $1,424,137.
32. What is the value of all the agricultural implements in your county. $80,000.

Relating to Farm Hands and Road Laborers.

42. What are the maximum wages paid (including board). $4 50 per day.
43. What are the minimum wages paid (including board). $2 per day.
44. What are the average wages paid (including board) per month. $30.
45. What industry of agriculture pays the maximum. Tending machinery.
46. What industry of agriculture pays the minimum. General laborer.
47. How many months in the year are laborers generally employed. 6.
49. What are the maximum hours of labor per diem. Sunrise to sunset.
51. What are the average hours of labor per diem. For the year, about 10 hours.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Always, except probably when employed by the year.
56. What is the wages paid to them. $1 per day.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. I should think if they would work to their employers' interest, and attend strictly to business, they would be better off.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

21. How many carpenters and joiners in the whole county. Don't know. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2; average, $2 50; without board.
23. How many carriage and wagon makers in the whole county. Don't know. Hours constituting a day's work, 10. Wages paid, $2 50; without board.

37. How many gunsmiths in the whole county. Don't know. Hours constituting a day's work, 10.
38. How many hat and cap makers in the whole county. Don't know. Hours constituting a day's work, 10.
43. How many machinists in the whole county. Don't know. Hours constituting a day's work, 10.
46. How many millers in the whole county. Don't know. Hours constituting a day's work, 12. Wages paid, maximum, $10; minimum, $4; without board.
48. How many employés in paper mills in the whole county. Don't know. Hours constituting a day's work, 12. Wages paid, males, maximum, $2; minimum, $1. Females, maximum, $1 50; minimum, $1; without board.
51. How many plumbers in the whole county. Don't know. Hours constituting a day's work, 10.
54. How many saddlers and harness-makers in the whole county. Don't know. Hours constituting a day's work, 10.
63. How many tanners in the whole county. Don't know. Hours constituting a day's work, 10. Wages paid, $2; without board.
64. How many tinsmiths in the whole county. Don't know. Hours constituting a day's work, 10. Wages paid, $2 50; without board.
66. How many wheelwrights in the whole county. Don't know. Hours constituting a day's work, 10. Wages paid, $3; without board.

FORM NO. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

1. How many miles of steam railroads in operation are in your county. 125. Average number of months engaged per annum, 12. Wages paid per month, $60; without board.
5. How many miles of street railroads (horse-power) are in your county. 12.
6. How many men are engaged thereon in your county. 20. Average hours per day, 13. Average number of months engaged per annum, 12. Wages paid per month, $30; without board.
7. How many conductors are engaged thereon in your county. Driver and conductor, 15. Average hours per day, 13. Average number of months engaged per annum, 12. Wages paid per month, $30; without board.

FORM NO. 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

1. How many auctioneers are employed in your county. 5. Wages paid, all on commission.
4. How many barbers are employed in your county. Don't know. Hours constituting a day's work, maximum, 16; average, 12. Average number of months engaged per annum, 12. Wages paid per day, $2 50; without board.
5. How many bookkeepers in all departments in your county. Don't know. Hours constituting a day's work, maximum, 12; average, 10. Average number of months engaged per annum, 12. Wages paid per month, maximum, $150; average, $75; without board.
6. How many bricklayers in your county. Don't know. Hours constituting a day's work, 10. Average number of months engaged per annum, 8. Wages paid per day, $3; without board.
7. How many clerks are employed in banking institutions in your county. Don't know. Hours constituting a day's work, 7. Average number of months engaged per annum, 12. Wages paid per month, $60; without board.
32. How many painters (house) in your county. Don't know. Hours constituting a day's work, 10. Average number of months engaged per annum, 8. Wages paid, $2; without board.
34. How many plasterers are employed in your county. Don't know. Hours constituting a day's work, 10. Average number of months engaged per annum, 6. Wages paid, $2 50; without board.
35. How many printers are employed in your county. Don't know. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, piece work; without board.
37. How many school teachers are employed in your county. Don't know. Hours constituting a day's work, 7. Average number of months engaged per annum, 10. Wages paid to males, maximum, $250; minimum, $50; average, $65; without board. Wages paid to females, maximum, $100; minimum, $50; average, $65; without board.
39. How many servants (domestic) are employed in your county. Don't know. Wages paid, $25 to $10 per month; without board.

FORM NO. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county. $27,166,850.
2. What is the total value of all the buildings in the towns of your county. $3,350,477.
6. Are there any trade unions in your county. Yes.
11. What percentage of dwellings are owned by the wage workers. 50.
14. What is the cost of food or board. $3 per week.

15. What is the cost of fuel. Wood, $5 to $9 per cord; coal, $8 50 to $13 per ton.
17. What is the cost of water for irrigation purposes. Depends on size of property.

Form No. 7. Relating to Chinese (Exclusively).

2. What are their conditions. Generally good.
3. What are their social habits. Same as all Chinese.
4. What are their sanitary habits. Same as Chinese everywhere.
8. What wages are paid to domestic servants per week. $1 to $4; per month, $4 to $16; with board.
10. What wages are paid to cooks per week. $3 to $5; per month, $10 to $25; with board.
30. How much of their yearly earnings are sent out of the county. 100 per cent, about.

SAN LUIS OBISPO COUNTY.

Statistical Statement made by A. M. Hardie, Assessor of San Luis Obispo County.

Form No. 1. Relating to Agriculture.

1. How many acres of land does your county or township contain. 2,022,400.
2. How many acres of land are under cultivation. 136,000.
3. How many acres of land are unfit for cultivation. 1,450,000.
4. How many acres of land are timber land. 236,400.
5. How many acres of land are open for preëmption. About 200,000.
6. What is the maximum price per acre. $9.
7. What is the minimum price per acre. $1 25.
8. What is the average price per acre. $5 12.
9. How many ranches are in your county. 1,035.
10. How many ranch owners. 1,026.
11. How many have from three to ten acres. 577.
12. How many have from ten to twenty-five acres. 90.
13. How many have from twenty-five to fifty acres. 75.
14. How many have from fifty to one hundred acres. 120.
15. How many have from one hundred to two hundred and fifty acres. 315.
16. How many have from two hundred and fifty to five hundred acres. 190.
17. How many have from five hundred to one thousand acres. 120.
18. How many have from one thousand to two thousand five hundred acres. 25.
19. How many have from two thousand five hundred to five thousand acres. 10.
20. How many have five thousand acres and over. 33.
21. How many ranches are worked by owners. 692.
25. What is the maximum rent per acre. $1 40.
26. What is the minimum rent per acre. 50 cents.
27. What is the average rent per acre. 80 cents.
28. How many buildings of all kinds does your county contain. Don't know.
29. What is their value. $397,730.
30. How many miles of fences in your county. 1,600.
31. What is their cost per mile. $200.
32. What is the value of all the agricultural implements in your county. $25,595.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county. About 600.
38. What are their ages. From 21 to 60.
42. What are the maximum wages paid (including board) per month. $25.
43. What are the minimum wages paid (including board) per month. $15.
44. What are the average wages paid (including board) per month. $20.
47. How many months in the year are laborers generally employed. 12.
48. When unemployed in agriculture, what industry do they pursue to gain a livelihood. General jobbing and day work.
49. What are the maximum hours of labor per diem. 12.
50. What are the minimum hours of labor per diem. 8.
51. What are the average hours of labor per diem. 10.
58. How many laborers (exclusive of Chinese) are in your county unemployed. Very few.
68. In what condition are the roads in your county (railroads excluded). Not very good.
70. How are the sanitary conditions of the lands in your county. Fair.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

1. How many asphaltum workers are employed in the whole county. 6. Hours constituting a day's work, maximum, 16; minimum, 14; average, 10. Wages paid, maximum, $2; minimum, $1; average, $1 50; with board.

7. How many bakers in the whole county. 6. Hours constituting a day's work, maximum, 14; minimum, 6; average, 10. Wages paid, maximum, $2 50; minimum, $1 50; average, $2; with board.

8. How many brewers in the whole county. 4. Hours constituting a day's work, maximum, 14; minimum, 6; average, 10. Wages paid, maximum, $2 50; minimum, $1 50; average, $2; with board.

9. How many blacksmiths in the whole county. 45. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $3 50; minimum, $2 50; average, $3; without board.

13. How many brick-makers in the whole county. 4. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.

18. How many cabinet-makers in the whole county. 4. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $4; minimum, $2 50; average, $3 25; without board.

21. How many carpenters and joiners in the whole county. 60. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2 50; average, $3 25; without board.

23. How many carriage and wagon makers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $3; average, $3 50; without board.

26. How many cigar-makers in the whole county. 1. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50.

27. How many confectioners in the whole county. 2. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.

29. How many coopers in the whole county. 2. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.

33. How many employés in dairies in the whole county. 560. Hours constituting a day's work, maximum, 16; minimum, 12; average, 14. Males, 540; females, 20. Wages paid, males, maximum, $1; minimum, 50 cents; average, 75 cents; with board. Females, maximum, 75 cents; minimum, 50 cents; average, 62½ cents; with board.

37. How many gunsmiths in the whole county. 2. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $4; minimum, $3; average, $3 50; without board.

39. How many iron molders in the whole county. 2. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $4; minimum, $3; average, $3 50; without board.

42. How many employés in limekilns in the whole county. 4. Hours constituting a day's work, 12. Wages paid, maximum, $2 50; minimum, $2; average, $2 25; without board.

43. How many machinists in the whole county. 12. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $5; minimum, $3; average, $4; without board.

44. How many marble-cutters in the whole county. 1. Hours constituting a day's work, 10. Wages paid, $4; without board.

46. How many millers in the whole county. 6. Hours constituting a day's work, maximum, 14; minimum, 10; average, 12. Wages paid, $3; with board.

51. How many plumbers in the whole county. 6. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $3; average, $3 50; without board.

54. How many saddlers and harness-makers in the whole county. 21. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.

59. How many shoe-makers in the whole county. 13. Hours constituting a day's work, maximum, 12; minimum, 10; average, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.

62. How many tailors in the whole county. 9. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Wages paid, maximum, $3; minimum, $2; average, $2 50: without board.

64. How many tinsmiths in the whole county. 10. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2 50; average, $3.

65. How many upholsterers in the whole county. 2. Hours constituting a day's work, 10. Wages paid, $3; without board.

FORM NO. 3. RELATING TO MINES AND MINERS (CHINESE EXCLUDED).

17. How many marble quarries are in your county. No marble; but there is an onyx, or alabaster mine, not worked.

19. How many quicksilver mines are in your county. 5; not being worked.

23. How many granite stone quarries are in your county. 1; but worked very little; stone is of good quality.

25. How many limestone quarries are in your county. 3.

There are 6 chrome iron mines in this county, but are not all worked, and it is impossible to obtain a correct statement of the number of tons mined and shipped. Will estimate as follows: Mines worked, 3; number of tons mined annually, 1,800.

Form No. 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

4. How many barbers are employed in your county. 13. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $50; minimum, $30; average, $40; without board.

5. How many bookkeepers in all departments in your county. 25. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $100; minimum, $50; average, $75; without board.

6. How many bricklayers in your county. 6. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $125; minimum, $75; average, $100; without board.

7. How many clerks are employed in banking institutions in your county. 3. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, maximum, $100; minimum, $50; average, $75; without board.

10. How many clerks employed in general merchandising in your county. 47. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Average number of months engaged per annum, 12. Wages paid, maximum, $75; minimum, $15; average, $45; without board.

11. How many clerks are employed in county and town governments in your county. 10. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9. Average number of months engaged per annum, 8. Wages paid, maximum, $100; minimum, $75; average, $87 50; without board.

12. How many cooks are employed in your county. 42. Hours constituting a day's work, maximum, 14; minimum, 10; average, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $80; minimum, $20; average, $50; with board.

13. How many dentists are employed in your county. 3. Hours constituting a day's work, 8. Average number of months engaged per annum, 12.

14. How many draughtsmen are employed in your county. 3. Hours constituting a day's work, 8. Average number of months engaged per annum, 12.

16. How many dress and cloak makers in your county. 12. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $30; minimum, $20; average, $25; with board.

18. How many engineers (civil) in your county. 3. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $100; minimum, $50; average, $75; without board.

19. How many engineers (stationary engines) in your county. 4. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Average number of months engaged per annum, 12. Wages paid, maximum, $75; minimum, $50; average, $62 50; without board.

21. How many florists and gardeners in your county. 5. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Average number of months engaged per annum, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.

24. How many journalistic editors in your county. 7. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9. Average number of months engaged per annum, 12.

25. How many journalistic reporters in your county. 4. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $75; minimum, $40; average, $57 50; without board.

26. How many hod carriers in your county. 3. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Wages paid, maximum, $60; minimum, $40; average, $50; without board.

27. How many hostlers in your county. 25. Hours constituting a day's work, maximum, 14; minimum, 12; average, 13. Average number of months engaged per annum, 12. Wages paid, maximum, $35; minimum, $20; average, $27 50; with board.

28. How many laundrywomen in your county. 7. Hours constituting a day's work, maximum, 14; minimum, 10; average, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $30; minimum, $20; average, $25; without board.

31. How many milliners in your county. 14. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $30; minimum, $25; average, $27 50; with board.

32. How many painters (house) in your county. 13. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2 50; average, $3 25; without board.

34. How many plasterers are employed in your county. 2. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $5; minimum, $3; average, $4; without board.

35. How many printers are employed in your county. 13. Males, 9; females, 4. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, males, $60; females, $30; minimum, males, $30; females, $15; average, males, $45; females, $22 50; without board.

36. How many photographers are employed in your county. 3. No estimates of wages can be made: doing their own work.

37. How many school teachers are employed in your county. 70. Males, 24; females, 46. Hours constituting a day's work, 6. Average number of months engaged per annum, 8. Wages paid, maximum, males, $100; females, $75; minimum, males, $75; females, $60; average, males, $87 50; females, $67 50; without board.
40. How many telegraph operators are employed in your county. 7. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Average number of months engaged per annum, 12. Wages paid, maximum, $75; minimum, $50; average, $62 50; without board.
41. How many telegraph messenger boys are employed in your county. 1. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Average number of months engaged per annum, 12. Wages paid, $15 per month; without board.
42. How many waiters (restaurant, hotel, etc.,) are employed in your county. 32. Males, 24; females, 8. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Average number of months engaged per annum, 12. Wages paid, maximum, males, $30; females, $20; minimum, males, $20; females, $15; average, males, $25; females, $17 50; with board.
43. How many watch-makers are employed in your county. 4. Hours constituting a day's work, 10.
47. How many wood-cutters are employed in your county. 20. Hours constituting a day's work, 12. Average number of months engaged per annum, 10. Wages paid, maximum, $50; minimum, $30; average, $40; without board.

FORM NO. 6. MISCELLANEOUS.

1. What is the total assessed value of all lands and town lots in your county. $5,956,753.
2. What is the total value of all the buildings in the towns of your county. $433,324.
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county. To no extent.
6. Are any trade unions in your county. No.
13. What is the cost of rent of rooms generally occupied by the wage workers. About $6 per month.
14. What is the cost of food or board per month. About $16.
15. What is the cost of fuel. Wood, $5 per cord; coal, $12 per ton.
16. What is the cost of water for household purposes per month. In city, $1 50 per month.
17. What is the cost of water for irrigation purposes. In city, $1 50 per month.
24. How many corporations (local) are in your county. 5.
25. Name them. Bank of San Luis Obispo, San Luis Obispo Hotel Company, San Luis Obispo Water Company, San Luis Obispo Gas Company, Caucasian Laundry Association of San Luis Obispo.
26. Name capital stock of each. Bank of San Luis Obispo, $100,000; San Luis Obispo Hotel Company, $90,000; San Luis Obispo Water Company, $60.000; San Luis Obispo Gas Company, $50,000; Caucasian Laundry Association of San Luis Obispo, $3,000.

FORM NO. 7. RELATING TO CHINESE (EXCLUSIVELY).

1. How many Chinese are in your county. Males, 196; females, 5.
7. How many of them are domestic servants. From 40 to 50.
8. What wages are paid to domestic servants per week. $5; per month, $25; with board.
9. How many of them are cooks. Nearly all.
10. What wages are paid to them per week. $6; per month, $30; with board.
11. How many are laundrymen. Don't know.
12. What wages do they earn per week. $5 to $7; per month, $25 to $35; with board.
13. How many Chinese laundries are in your county. 10.
14. How many Chinese do they employ in your county. 60.
15. How many Chinese cultivate the soil in your county. 18.
16. What wages are paid them per month with board. $15 to $30; without board, $25 to $40.
25. What percentage of the food are home products. About 1½ per cent.
26. What percentage of the food are imported from foreign countries. 98½ per cent.
30. How much of their yearly earnings are sent out of the country. Nearly all.
31. What percentage to the amount of earnings. Probably 75 per cent.

FORM NO. 8. RELATING TO INMATES OF JAILS AND OTHER REFORMATORY INSTITUTIONS.

1. How many inmates are in your county jail in your county. 4.
2. What are their ages. From 25 to 50.
3. What are their nationalities. 2 Mexicans or Californians; 2 Americans or Caucasians.
4. What are their conditions and sanitary habits. Fair.

SAN MATEO COUNTY.

Statistical Statement made by P. J. Maloney, Assessor of San Mateo County.

FORM No. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county contain. 28,800.
2. How many acres of land (exclusive of town lots) are under cultivation. 75,000.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 210,000.
4. How many acres of land (exclusive of town lots) are timber land. 105,000.
6. What is the maximum price per acre (exclusive of town lots). $500.
7. What is the minimum price per acre (exclusive of town lots). $1 25.
8. What is the average price per acre (exclusive of town lots). $20.
9. How many ranches are in your county. 4,000.
10. How many ranch owners. 1,000.
11. How many have from three to ten acres. 200.
12. How many have from ten to twenty-five acres. 150.
13. How many have from twenty-five to fifty acres. 100.
14. How many have from fifty to one hundred acres. 90.
15. How many have from one hundred to two hundred and fifty acres. 75.
16. How many have from two hundred and fifty to five hundred acres. 60.
17. How many have from five hundred to one thousand acres. 50.
18. How many have from one thousand to two thousand five hundred acres. 25.
19. How many have from two thousand five hundred to five thousand acres. 10.
20. How many have five thousand acres and over. 6.
21. How many ranches are worked by owners. 250.
22. How many ranches are worked in shares between owner and renter. 25.
24. How many ranches are rented. 700.
25. What is the maximum rent per acre. $10.
26. What is the minimum rent per acre. $1.
27. What is the average rent per acre. $3.
28. How many buildings of all kinds does your county contain. 3,000.
29. What is their value. $1,445,705.
32. What is the value of all the agricultural implements in your county. $135,715.
33. How many labor-saving agricultural implements are in your county. 300.
34. What is their value. $43,000.
35. What is their combined horse (or man) power. 3,000.
36. How many ranch cultivators in your county use labor-saving machines. 225.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county. 1,000.
38. What are their ages. From 15 to 60.
39. How many are under fifteen years of age. 50.
40. How many of the laborers are females. 3.
41. What are their ages. From 18 to 25.
42. What are the maximum wages paid (including board) per month. $40.
43. What are the minimum wages paid (including board) per month. $15.
44. What are the average wages paid (including board) per month. $25.
47. How many months in the year are laborers generally employed. 8.
51. What are the average hours of labor per diem. 10.
55. How many road laborers are in your county. 20.
56. What is the wages paid to them. $2 per day.
58. How many laborers (exclusive of Chinese) are in your county unemployed. One fifth.
62. What are their ages. From 17 to 70.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. Remunerative employment, short hours, mental development, expulsion of the Chinese, and high license.

FORM No. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

7. How many bakers in the whole county. 5. Hours constituting a day's work, 12. Wages paid, maximum, $40; minimum, $30; average, $35; with board.
8. How many brewers in the whole county. 3.
9. How many blacksmiths in the whole county. 20. Hours constituting a day's work, 10. Wages paid, maximum, $75; minimum, $45; average, $60; without board.
21. How many carpenters and joiners in the whole county. 100. Hours constituting a day's work, 10. Wages paid, maximum, $70; minimum, $40; without board.
23. How many carriage and wagon makers in the whole county. 5. Hours constituting a day's work, 10. Wages paid, maximum, $75; minimum, $50; average, $62 50; without board.
26. How many cigar-makers in the whole county. 2.

33. How many employés in dairies in the whole county. 75. Hours constituting a day's work, 12. Wages paid, maximum, $30; minimum, $25; average, $27 50; with board.
46. How many millers in the whole county. 3. Hours constituting a day's work, 12. Wages paid, maximum, $100; minimum, $75; average, $87 50; without board.
51. How many plumbers in the whole county. 3. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9. Wages paid, maximum, $75; minimum, $40; average, $57 50; without board.
54. How many saddlers and harness-makers in the whole county. 5. Hours constituting a day's work. 10. Wages paid, maximum, $60; minimum, $40; average, $50; without board.
59. How many shoe-makers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, maximum, $50; minimum, $40; average, $45.
62. How many tailors in the whole county. 3.
63. How many tanners in the whole county. 30. Hours constituting a day's work, 10. Wages paid, maximum, $75; minimum, $50; average, $62 50.
64. How many tinsmiths in the whole county. 4. Hours constituting a day's work, 10.
66. How many wheelwrights in the whole county. 2.
70. How many of the aforementioned professions are unemployed. One fifth.
73. The causes. Old age; drink; unable to obtain work.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

1. How many miles of steam railroad in operation are in your county. 25.10.
2. How many employés of all kinds on above are in your county. 24. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $120; minimum, $50; average, $85; without board.
9. How many miles of macadamized roads are in your county. 40.
10. How many men are engaged thereon in your county. 30. Average hours per day, 10. Average number of months engaged per annum, 2. Wages paid, $2 per day.
11. How many stage drivers in your county. 4.
12. How many teamsters hauling, etc., in your county. 15.
13. How many draymen hauling, etc., in your county. 1.
14. How many agents, railroad, stage, express, and steamboat, in your county. 10. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $100; minimum, $50; average, $75; without board.
15. How many men are engaged in express companies in your county. 1.
16. How many steamboats and sailing vessels of all kinds in your county. 3.
17. How many captains thereon in your county. 3. Average hours per day, 24. Average number of months engaged per annum, 12. Wages paid, maximum, $125; minimum, $75; average, $100; without board.
18. How many pilots thereon in your county. 1. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid, $100; without board.
20. How many engineers thereon in your county. 12. Average hours per day, 12. Wages paid, $100; without board.
21. How many freight clerks thereon in your county. 7. Wages paid, $65; without board.
22. How many mates thereon in your county. 3. Average hours per day, 12. Wages paid, $50; without board.
23. How many stewards thereon in your county. 1. Average hours per day, 12. Wages paid, $25; with board.
24. How many cooks thereon in your county. 5. Average hours per day, 12. Wages paid, maximum, $40; minimum, $30; average, $35; with board.
25. How many firemen thereon in your county. 2. Average hours per day, 12. Wages paid, $70; with board.
26. How many sailors thereon in your county. 40. Average hours per day, 12. Wages paid, maximum, $30; minimum, $20; average, $25; with board.

Form No. 5. Relating to Clerical and Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

1. How many auctioneers are employed in your county. 2.
4. How many barbers are employed in your county. 20. Hours constituting a day's work, 12. Wages paid, $18 per week; without board.
5. How many bookkeepers in all departments in your county. 30. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9. Wages paid, maximum, $65; minimum, $50; average, $57 50; without board.
6. How many bricklayers in your county. 3. Hours constituting a day's work, 10. Wages paid, maximum, $100; minimum, $75; average, $87 50; without board.
10. How many clerks employed in general merchandising in your county. 20. Males, 15; females, 5. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Wages paid, maximum, $75; minimum, $25; average, $50; without board.
11. How many clerks are employed in county and town governments in your county. 6. Hours constituting a day's work, 8. Wages paid, $100; without board.
12. How many cooks are employed in your county. 50. Males, 40; females, 10. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Wages paid, maximum, $75; minimum, $25; average, $50; with board.
13. How many dentists are employed in your county. 1.

14. How many draughtsmen are employed in your county. 1.
15. How many draymen are employed in your county. 1.
16. How many dress and cloak makers in your county. 20. Males, 1; females, 19. Hours constituting a day's work, 12. Wages paid, maximum, $30; minimum, $10; average, $20; without board.
19. How many engineers (stationary engines) in your county. 12. Hours constituting a day's work, 10. Wages paid, maximum, $50: minimum, $40; average, $45; with board.
20. How many engineers (mining) in your county. 1.
21. How many florists and gardeners in your county. 20. Hours constituting a day's work, 10. Wages paid, maximum, $100; minimum, $50; average, $75.
28. How many laundrymen in your county. 10. Hours constituting a day's work, 12. Wages paid, maximum, $40; minimum, $30; average, $35; with board.
29. How many longshoremen in your county. 1. Hours constituting a day's work, 12. Wages paid, $50; with board.
30. How many lumbermen in your county. 40. Hours constituting a day's work, 10. Wages paid, $50; with board.
31. How many milliners in your county. 5.
32. How many painters (house) in your county. 20. Wages paid, $50; without board.
33. How many fresco painters are employed in your county. 19. Wages paid, $50; without board.
34. How many plasterers are employed in your county. 1. Wages paid, $75; without board.
35. How many printers are employed in your county. 5. Wages paid, $40; without board.
36. How many photographers are employed in your county. 1.
37. How many school teachers are employed in your county. 30. Males, 10; females, 20. Hours constituting a day's work, maximum, 8; minimum, 6; average, 7. Wages paid, maximum, $100; minimum, $50; average, $75; without board.
38. How many seamstresses are employed in your county. 6. Hours constituting a day's work, 10. Wages paid, $30.
39. How many servants (domestic) are employed in your county. 100. Females. Hours constituting a day's work, 12. Wages paid, maximum, $30; minimum, $10; average, $20; with board.
40. How many telegraph operators are employed in your county. 7. Males, 4; females, 3. Hours constituting a day's work, 12. Wages paid, maximum, $75; minimum, $50; average, $62 50.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. 20. Males, 15; females, 5.
43. How many watch-makers are employed in your county. 1.
44. How many well-borers (artesian) are employed in your county. 1.
47. How many wood-cutters are employed in your county. 40. Wages paid, maximum, $45; minimum, $35; average, $40.

FORM NO. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county. $6,430,245.
2. What is the total value of all the buildings in the towns of your county. $281,915.
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county. To a small extent.
6. Are any trade unions in your county. None.
9. How are the sanitary conditions of the workshops of mechanics and manufacturers. Good.
10. How are the sanitary conditions of the dwellings of the wage workers. Fair.
11. What percentage of dwellings are owned by them. 70 per cent.
12. What is the cost of rent of dwellings generally occupied by the wage workers. $7 to $10 per month.
13. What is the cost of rent of rooms generally occupied by the wage workers. $5 per month.
14. What is the cost of food or board per month. $20.
15. What is the cost of fuel. Wood, $4 to $5 per cord; coal, $6 to $10.
16. What is the cost of water for household purposes per month. $1.
24. How many corporations (local) are in your county. 3.
25. Name them. San Bernardino Water Company, San Mateo Water Company, Los Trancos Water Company.

FORM NO. 7. RELATING TO CHINESE (EXCLUSIVELY).

1. How many Chinese are in your county. 250.
6. How many of them are employed. 150.
7. How many of them are domestic servants. 50.
8. What wages are paid to domestic servants per month. $20; with board.
9. How many of them are cooks. 75.
11. How many of them are laundrymen. 40.

12. What wages do they earn per month. $30.
13. How many Chinese laundries are in your county. 8.
14. How many Chinese do they employ in your county. 5.
15. How many Chinese cultivate the soil in your county. 75.
16. What wages are paid them per day. $1; without board.
23. How much do they expend for rent, either per head or collectively, per month. $1 each.
24. How much do they expend for food per head per month. $3.
25. What percentage of food are home products. 20.
26. What percentage of food are imported from foreign countries. 80.
27. How much do they expend for clothing per head each year. $5.
28. What percentage of the clothing is of American manufacture. None.
29. What percentage of the clothing is imported. 100.
30. How much of their yearly earnings are sent out of the country. 95 per cent.
31. What percentage to the amount of earnings. 95.

Form No. 8. Relating to Inmates of Jails and Other Reformatory Institutions.

1. How many inmates are in your county jail and other reformatory institutions in your county. Males, 4; females, 2.
2. What are their ages. Males, 20 to 40; females, 18 to 25.
4. What are their conditions and sanitary habits. Good while in jail.

SANTA CLARA COUNTY.

Statistical Statement made by Lewis A. Spitzer, Assessor of Santa Clara County.

Form No. 1. Relating to Agriculture.

1. How many acres of land (exclusive of town lots) does your county or township contain. 817,000.
2. How many acres of land (exclusive of town lots) are under cultivation. 175,667.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. About 400,000.
4. How many acres of land (exclusive of town lots) are timber land. About 40,000.
6. What is the maximum price per acre (exclusive of town lots). $600.
7. What is the minimum price per acre (exclusive of town lots). $1 50.
8. What is the average price per acre (exclusive of town lots). $44 50.
9. How many ranches are in your county. About 3,695.
10. How many ranch owners. About 2,500.
11. How many have from three to ten acres. 507.
12. How many have from ten to forty acres. 869.
13. How many have from forty to sixty acres. 248.
14. How many have from sixty to one hundred acres. 379.
15. How many have from one hundred to one hundred and sixty acres. 431.
16. How many have from one hundred and sixty to two hundred and forty acres. 247.
17. How many have from two hundred and forty to three hundred and twenty acres. 183.
18. How many have from three hundred and twenty to four hundred acres. 116.
19. How many have from four hundred to six hundred and forty acres. 517.
20. How many have five thousand acres and over. 15.
21. How many ranches are worked by owners. About 1,900.
22. How many ranches are worked in shares between owner and renter. About 400.
24. How many ranches are rented. About 200.
25. What is the maximum rent per acre. $15.
26. What is the minimum rent per acre. $1 50.
27. What is the average rent per acre. $6.
28. How many buildings of all kinds does your county contain. Impossible to answer correctly; we suppose about 4,000.
29. What is their value. $3,452,028.
30. How many miles of fences are in your county. About 3,000.
31. What is their cost per mile. $200; some good, some very poor.
32. What is the value of all agricultural implements in your county. $46,750.
33. How many labor-saving agricultural implements are in your county. Not obtainable.
34. What is their value. $226,865.
36. What percentage of ranch cultivators in your county use labor-saving machines. Nearly all.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county. About 1,500.
38. What are their ages. From 15 to 60.
42. What are the maximum wages paid (including board) per month. $30.
43. What are the minimum wages paid (including board) per month. $15.

44. What are the average wages paid (including board) per month. $25.
45. What industry of agriculture pays the maximum. Grain growers.
46. What industry of agriculture pays the minimum. Fruit growers.
47. How many months in the year are laborers generally employed. 7.
48. When unemployed in agriculture, what industry do they pursue to gain a livelihood. Wood chopping, road building, and various employments; many are to be found in the boarding houses, unable to obtain any employment of any kind.
51. What are the average hours of labor per diem. 9½.
55. How many road laborers are in your county. About 50.
56. What is the wages paid to them. $1 75 per day.
57. What is the laborers' condition in general. Morally, fair; physically, strong; mentally, reasonably fair.
58. How many laborers (exclusive of Chinese) are in your county unemployed. 700 or 800.
59. How many of the unemployed are native Americans. About 200.
60. How many of the unemployed are foreigners. About 600.
61. Their nationality. Swedes, Italians, and nearly all other nationalities.
62. What are their ages. From 15 to 60.
63. How many under fifteen. Not many.
65. What are the causes of their idleness. (Please state everything you know about it.) Short crops and labor-saving machinery have materially decreased the number of hands usually employed in prosperous seasons.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county. Stop manufacturing labor-saving machines, and the importation of Chinese. If the people generally would stop employing Chinese to pick fruit, and would give the same employment to girls and boys, there would not be an idle girl or boy in the county for about four months out of twelve.
67. How do they obtain sustenance and clothing. From savings accumulated while employed.
68. In what condition are the roads in your county (railroads excluded). Best in the State, we think.
69. Can you suggest anything that will ameliorate the condition of the laborers, and accrue to their benefit. The investment of capital in manufacturing enterprises, and drinking less whisky, and less loafing around the streets.
70. How are the sanitary conditions of the lands in your county. Generally good.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

1. How many asphaltum workers are employed in the whole county. 3. Hours constituting a day's work, 10. Wages paid, $2 50; without board.
2. How many awning-makers are employed in the whole county. 2. Hours constituting a day's work, 10. Wages paid, $3; without board.
3. How many employés in agricultural implements in the whole county. 50. Hours constituting a day's work, 10. Wages paid, $3 50; without board.
7. How many bakers in the whole county. 25. Hours constituting a day's work, 14. Wages paid, $1 50; with board.
8. How many brewers in the whole county. 60. Hours constituting a day's work, 14. Wages paid, $2; with board.
9. How many blacksmiths in the whole county. 150. Hours constituting a day's work, 10. Wages paid, maximum, $2 50; minimum, $1; average, $2; without board.
10. How many boiler-makers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
11. How many brass molders in the whole county. 1. Hours constituting a day's work, 10. Wages paid, $3; without board.
12. How many bookbinders in the whole county. 8. Hours constituting a day's work, 10. Wages paid, $3; without board.
13. How many brick-makers in the whole county. 40. Hours constituting a day's work, 10. Wages paid, $1 50; with board.
14. How many broom-makers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, $1 50; with board.
17. How many box (wood, packing) makers in the whole county. 20. Hours constituting a day's work, 10. Wages paid, $2; without board.
18. How many cabinet-makers in the whole county. 15. Hours constituting a day's work, 10. Wages paid, $2 50; without board.
20. How many canneries (fish, fruit, etc.) employés in the whole county. 500. Hours constituting a day's work, 10. Wages paid, males, maximum, $1 75; minimum, 50 cents; average, $1 25. Females, maximum, $1 25; minimum, 50 cents; average, 75 cents; without board.
21. How many carpenters and joiners in the whole county. 500. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
23. How many carriage and wagon makers in the whole county. 135. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2 50; average, $3; without board.

26. How many cigar-makers in the whole county. 35. Hours constituting a day's work, 10. Wages paid, males, maximum, $3; minimum, $2; average, $2 50. Females, maximum, $2; mimimum, $1; average, $1 50; without board.
27. How many confectioners in the whole county. 5. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $3; average, $3 50; without board.
28. How many coffee and spice mills employés in the whole county. 8. Hours constituting a day's work, 10. Males, 6; females, 2. Wages paid to males, maximum, $2 50; minimum, $1 50; average, $2 25; without board. Wages paid to females, maximum, $1 75; minimum, $1 25; average, $1 50; without board.
29. How many coopers in the whole county. 15. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2 50; average, $3; without board.
32. How many employés in distilleries in the whole county. 25. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $1 50; average, $2 50; without board.
33. How many employés in dairies in the whole county. 94. Hours constituting a day's work, 12. Wages paid, maximum, $1 25; minimum, 75 cents; average, $1; with board.
35. How many glove-makers in the whole county. 140. Hours constituting a day's work, 10. Males, 35; females, 105. Wages paid to males, maximum, $2 50; minimum, $1 75; average, $2 25; without board. Wages paid to females, maximum, $1 25; minimum, 75 cents; average, $1; without board.
37. How many gunsmiths in the whole county. 18. Hours constituting a day's work, 10. Wages paid, maximum, $3 75; minimum, $2 50; average, $3 25; without board.
39. How many iron molders in the whole county. 6. Hours constituting a day's work, 10. Wages paid, maximum, $4 50; minimum, $3 50; average, $4; without board.
41. How many locksmiths in the whole county. 6. Hours constituting a day's work, 10. wages paid, maximum, $3; minimum, $1 50; average, $2 50; without board.
42. How many employés in limekilns in the whole county. 30. Hours constituting a day's work, 10. Wages paid, $1 25; with board.
43. How many machinists in the whole county. 55. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2; average, $3; without board.
44. How many marble-cutters in the whole county. 45. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
46. How many millers in the whole county. 4. Hours constituting a day's work, 10. Wages paid, $4; without board.
47. How many pattern-makers in the whole county. 3. Hours constituting a day's work, 10. Wages paid, maximum, $4 50; minimum, $3 50; average, $4; without board.
48. How many employés in paper mills in the whole county. 25. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $1 50; average, $2 50; without board.
49. How many potters in the whole county. 15. Hours constituting a day's work, 10. Wages paid, $1 50; with board.
51. How many plumbers in the whole county. 35. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2; average, $3; without board.
54. How many saddlers and harness-makers in the whole county. 65. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
57. How many sash, door, and blind makers in the whole county. 22. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
58. How many shingle-makers in the whole county. 26. Hours constituting a day's work, 10. Wages paid, maximum, $1 50; minimum, $1; average, $1 25; with board.
59. How many shoe-makers in the whole county. 85. Hours constituting a day's work, 10. Wages paid, maximum, $3 25; minimum, $2, average, $2 75; without board.
60. How many soda works employés in the whole county. 12. Hours constituting a day's work, 10. Wages paid, maximum, $2; minimum, $1 25; average, $1 50; with board.
61. How many stone-cutters in the whole county. 36. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2 50; average, $3; without board.
62. How many tailors in the whole county. 65. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
63. How many tanners in the whole county. 90. Hours constituting a day's work, 10. Wages paid, maximum, $2; minimum, $1 50; average, $1 75; with board.
64. How many tinsmiths in the whole county. 48. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 75; without board.
65. How many upholsterers in the whole county. 13. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $1 50; average, $2 50; without board.
66. How many wheelwrights in the whole county. 55. Hours constituting a day's work, 10. Wages paid, maximum, $3 25; minimum, $2 50; average, $2 75; without board.
67. How many wine manufacturers in the whole county. 85. Hours constituting a day's work, 10. Wages paid, $1 50; with board.
68. How many willow and wood-ware employés in the whole county. 4. Wages paid, $3; with board.

69. How many woolen mills employés in the whole county. 35. Hours constituting a day's work, 10. Wages paid, males, maximum, $2 50; minimum, $2; average, $2 25; without board; females, maximum, $1 75; minimum, $1; average, $1 50; without board.
70. How many of the aforementioned professions are unemployed. A small percentage.
72. Their ages. From 15 to 60 years.

Form No. 3. Relating to Mines and Miners (Chinese Excluded).

19. How many quicksilver mines are in your county. 2.
20. How many quicksilver miners are in your county. 330. Hours constituting a day's work, 8. Number of months employed in the year, 10. Wages paid, maximum, $2 50; minimum, $1 50; average, $2 25; without board.
25. How many limestone quarries are in your county. 2.
26. How many limestone miners are in your county. 25. Hours constituting a day's work, 10. Number of months employed in the year, 10. Wages paid, maximum, $2 75; minimum, $2; average, $2 50; without board.
27. How many sandstone quarries are in your county. 2.
28. How many sandstone miners are in your county. 50. Hours constituting a day's work, 10. Number of months employed in the year, 9. Wages paid, maximum, $1 50; minimum, $1; average, $1 25; with board.
31. How many miners in your county are unemployed. 80.
32. The causes. One of our quicksilver mines is shut down.
33. Their ages and nationality. From 18 to 60 years; some few Mexicans.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

1. How many miles of steam railroads in operation are in your county. 93.
3. How many miles of unfinished steam railroads are in your county. 18.
5. How many miles of street railroads (horse power) are in your county. 15.
6. How many men are engaged thereon in your county. 28. Hours constituting a day's work, 15. Number of months engaged per annum, 12. Wages paid, $1 50; without board.
7. How many conductors are engaged thereon in your county. None.
8. How many drivers are engaged thereon in your county. 20. Hours constituting a day's work, 15. Number of months engaged per annum, 12. Wages paid, $1 50; without board.
9. How many miles of macadamized roads are in your county. Nearly all of them are graveled.
10. How many men are engaged thereon in your county. 50. Hours constituting a day's work, 10. Number of months engaged per annum, 7. Wages paid, $1 75; without board.
11. How many stage drivers in your county. 5. Hours constituting a day's work, 12. Number of months engaged per annum, 12. Wages paid, $1 50; with board.
12. How many teamsters hauling, etc., in your county. 55. Hours constituting a day's work, 12. Number of months engaged per annum, 12. Wages paid, $1 50; with board.
13. How many draymen hauling, etc., in your county. 12. Hours constituting a day's work, 10. Number of months engaged per annum, 12. Wages paid, $1 50; with board.
14. How many agents, railroad, stage, express, and steamboat, in your county. 65. Hours constituting a day's work, 10. Number of months engaged per annum, 12. Wages paid, maximum, $6; minimum, $2; average, $3; without board.
15. How many men are engaged in express companies in your county. 25. Hours constituting a day's work, 10. Number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2 50; average, $3 50; without board.
27. How many men generally engaged in transportation are out of employment in your county. 30.
28. For what causes. Short crops; very little grain to be transported.
29. Their ages and nationalities. 20 to 60 years; all nationalities.
30. How do they subsist. By getting occasional jobs of work here and there.

Form No. 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

1. How many auctioneers are employed in your county. 5.
2. How many advertising agents are employed in your county. 5.
3. How many assayers and chemists are employed in your county. 2.
4. How many barbers are employed in your county. 85. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $2 50; minimum, $1 50; average, $2; without board.
5. How many bookkeepers in all departments in your county. 115. Males, 90; females, 25. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, males, maximum, $4; minimum, $1; average, $3. Females, maximum, $2; minimum, 50 cents; average, $1 25; without board.

6. How many bricklayers in your county. 56. Hours constituting a day's work, 10. Average number of months engaged per annum, 8. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
7. How many clerks are employed in banking institutions in your county. 16. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
8. How many clerks are employed in insurance offices in your county. 15. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
9. How many clerks are employed in lawyers' offices in your county. 10. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3 50; minimum, $1 50; average, $2 50; without board.
10. How many clerks employed in general merchandising in your county. 280. Males, 250; females, 30. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, males, maximum, $3; minimum, $1; average, $2. Females, maximum, $2; minimum, 50 cents; average, $1 50; without board.
11. How many clerks are employed in county and town governments in your county. 35. Males, 33; females, 2. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, males, maximum, $3; minimum, $2; average, $2 50. Females, maximum, $4; minimum, $2; average, $3; without board.
12. How many cooks are employed in your county. 140. Males, 100; females, 40. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, males, maximum, $2; minimum, $1; average, $1 50. Females, maximum, $1 50; minimum, 50 cents; average, $1; with board.
13. How many dentists are employed in your county. 18. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
14. How many draughtsman are employed in your county. 10. Males, 8; females, 2. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, males, maximum, $3; minimum, $2; average, $2 50. Females, maximum, $2, minimum, $1; average, $1 50; without board.
15. How many draymen are employed in your county. 12. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $1 50; without board.
16. How many dress and cloak makers in your county. 85. Hours constituting a day's work, 10. Average number of months engaged per annum, 8. Wages paid, maximum, $2; minimum, $1; average, $1 50; without board.
17. How many engravers in your county. 3. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $3; average, $3 50; without board.
18. How many engineers (civil) in your county. 6. Hours constituting a day's work, 10. Average number of months engaged per annum, 9. Wages paid, maximum, $4; minimum, $3; average, $3 50; without board.
19. How many engineers (stationary engines) in your county. 34. Hours constituting a day's work. 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2 50; average, $3 25; without board.
20. How many engineers (mining) in your county. 2. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $4; without board.
21. How many florists and gardeners in your county. 18. Hours constituting a day's work, 10. Average number of months engaged per annum, 9. Wages paid, maximum, $2 50; minimum, $1 50; average, $2; without board.
23. How many glaziers in your county. 11. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $2 50; without board,
24. How many journalistic editors in your county. 8. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $5; minimum, $3 50; average, $4 50; without board.
25. How many journalistic reporters in your county. 15. Hours constituting a day's work, 14. Average number of months engaged per annum, 12. Wages paid, maximum, $3 50; minimum, $2 50; average, $3; without board.
26. How many hod carriers in your county. 40. Hours constituting a day's work, 10. Average number of months engaged per annum, 9. Wages paid, $2; without board.
27. How many hostlers in your county. 75. Hours constituting a day's work, 14. Average number of months engaged per annum, 12. Wages paid, maximum, $2 50; minimum, $2; average, $2 25; without board.
28. How many laundrymen in your county. 18. Males, 8; females, 10. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid to males, maximum, $1 50; minimum, 75 cents; average, $1; with board. Wages paid to females, maximum, $1 50; minimum, 75 cents; average, $1; with board.
30. How many lumbermen in your county. 30. Hours constituting a day's work, 10. Average number of months engaged per annum, 9. Wages paid, maximum, $2 25; minimum, $1 75; average, $2; without board.
31. How many milliners in your county. 65. Hours constituting a day's work, 10. Average number of months engaged per annum, 9. Wages paid, maximum, $2; minimum, $1; average, $1 50; without board.

32. How many painters (house) in your county. 75. Hours constituting a day's work, 10. Average number of months engaged per annum, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.

33. How many fresco painters are employed in your county. 4. Hours constituting a day's work, 10. Average number of months engaged per annum, 8. Wages paid, maximum, $5; minimum, $3; average, $4; without board.

34. How many plasterers are employed in your county. 52. Hours constituting a day's work, 10. Average number of months engaged per annum, 10. Wages paid, maximum, $3 50; minimum, $2 50; average, $3; without board.

35. How many printers are employed in your county. 140. Males, 105; females, 35. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid to males, maximum, $4; minimum, $1; average, $2; without board. Wages paid to females, maximum, $1 50; minimum, 75 cents; average, $1; without board.

36. How many photographers are employed in your county. 26. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.

37. How many school teachers are employed in your county. 150. Males, 40; females, 110. Hours constituting a day's work, 6. Average number of months engaged per annum, 10. Wages paid to males, maximum, $6; minimum, $2 25; average, $3. Wages paid to females, maximum, $4; minimum, $2 25; average, $2 75; without board.

38. How many seamstresses are employed in your county. 120. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $2; minimum, 50 cents; average, $1 50; without board.

39. How many servants (domestic) are employed in your county. 175. Hours constituting a day's work, 12. Wages paid, maximum, $1; minimum, 50 cents; average, 75 cents; with board.

40. How many telegraph operators are employed in your county. 36. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.

41. How many telegraph messenger boys are employed in your county. 15. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $1; without board.

42. How many waiters (restaurant, hotel, etc.) are employed in your county. 130. Males, 90; females, 40. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid to males, maximum, $1 50; minimum, $1; average, $1 25; with board. Wages paid to females, maximum, $1; minimum, 50 cents; average, 75 cents: with board.

43. How many watch-makers are employed in your county. 23. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3 50; minimum, $2; average, $3; without board.

44. How many well-borers (artesian) are employed in your county. 8. Hours constituting a day's work, 10. Average number of months engaged per annum, 6. Wages paid, maximum, $2; minimum, $1; average, $1 50; without board.

46. How many wood carvers and turners are employed in your county. 8. Hours constituting a day's work, 10. Average number of months engaged per annum, 8. Wages paid, maximum, $4; minimum, $2; average, $3; without board.

47. How many wood-cutters are employed in your county. 145. Hours constituting a day's work, 12. Average number of months engaged per annum, 10. Wages paid, maximum, $1 50; minimum, $1; average, $1 25; with board.

49. How many of the foregoing mentioned professions are unemployed in your county. Males, about 10 per cent; females, 10 per cent; nearly all nationalities represented.

50. From what cause. General dullness of trade.

51. How do they manage to subsist. By occasionally getting a few days' work.

FORM NO. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county. $22,842,715.

2. What is the total value of all the buildings in the towns of your county. $3,829,005. Total valuation of improvements in county outside of towns. $3,452,028.

3. What is the total value of all the machineries used for mechanical and manufacturing purposes. $78,965.

4. What is the total value of all materials used in manufactures in your county. No means of ascertaining. Raised 10 per cent by State Board of Equalization. To be added to above.

5. To what extent does the apprenticeship system prevail in the various skilled industries in your county. Not many boys learning trades in this county as apprentices; nearly impossible for a boy to find a place where he can learn a trade.

9. How are the sanitary conditions of the workshops of mechanics and manufacturers. Very fair.

10. How are the sanitary conditions of the dwellings of the wage workers. Very fair.

11. What percentage of dwellings are owned by them. From 30 to 35 per cent.

12. What is the cost of rent of dwellings generally occupied by the wage workers. $8 to $12.

13. What is the cost of rent of rooms generally occupied by the wage workers. $3 to $4.

14. What is the cost of food or board per month. $16 to $20.

15. What is the cost of fuel. Wood, $5 to $8 per cord; coal, $10 to $14 per ton.
16. What is the cost of water for household purposes per month. $1 to $3 per lot in town. $1 per acre in county.
18. How many poor people live in your county. Males, 55; females, 5; in the county almshouse.
19. Their ages. From 40 to 80 years.
20. The cause. Too much whisky. Too lazy to work in many cases. Some of them very worthy men, but too old. Nationality. Nearly all nations represented.
21. How many rooms do they occupy. 30.
22. What are their conditions. Sanitary, excellent; morally, good when kept from whisky.
24. How many corporations (local) are in your county. 21.
25. Name them. Quicksilver Mining Company; Guadalupe Quicksilver Company of Baltimore, Maryland; San José Woolen Mill Company; San José Gas Company; Brush Electric Light Company; San José Water Company; San José and Santa Clara Horse Railroad Company; First Street and Willow Glen Horse Railroad Company; North Side Horse Railroad Company; Bank of San José; Commercial and Savings Company; First National Bank; Safe Deposit Bank; Bank of Gilroy; Bank of Santa Clara County; Bank of Los Gatos; Santa Clara Valley Mill and Lumber Company; Enterprise Mill and Lumber Company; Pacific Manufacturing Company; Fredericksburg Brewing Company; Farmers' Union.
26. Name capital stock of each. Bank of San José, $250,000; Commercial and Savings Bank, $1,000,000; First National Bank, $500,000; Safe Deposit Bank, $1,000,000; Bank of Los Gatos, $50,000.

FORM NO. 7. RELATING TO CHINESE (EXCLUSIVELY).

1. How many Chinese are in your county. Males, about 2,950; females, 50.
2. What are their conditions. Financially prosperous.
3. What are their social habits. Beastly.
4. What are their sanitary habits. Could not be much worse.
5. How many of them are married. Very few: not more than 10.
7. How many of them are domestic servants. About 340.
8. What wages are paid to domestic servants per week. $5; per month, $20.
9. How many of them are cooks. 560.
10. What wages are paid to them per week. $6; per month, $25.
11. How many are laundrymen. About 40.
12. What wages do they earn per week. $6; per month, $25; with board.
13. How many Chinese laundries are in your county. About 40.
14. How many Chinese do they employ in your county. About 200.
15. How many Chinese cultivate the soil in your county. About 2,000; picking and raising fruit and vegetables.
16. What wages are paid them per month with board. $20; without board, $30.
17. How many Chinese miners are in your county. 40 or 50 working around the quicksilver mines; could hardly be called miners.
19. How many of them are employed in manufactures of all kinds. 165.
20. Name the various industries and number employed in each of them. Brick-makers, 60; woolen mills, 30; box-making, 10; shoe-makers, 5; underwear and clothing, 15; peddlers, 20; tinsmiths, 20; potters, 10.
21. What are the wages paid them in each of the industries employed. Brick-makers, $1; woolen mill, $1; box-making, $1; shoe-makers, $1 25; underwear and clothing, $1; peddlers, $1; tinsmiths, $1; potters, $1.
22. What is the gross amount paid them yearly in every branch in which they are engaged. About $80,000 per month.
23. How much do they expend for rent, either per head or collectively, per month. $1 each.
24. How much do they expend for food, per head or collectively, per month. $8 each.
25. What percentage of the food are home products. About 25 per cent.
26. What percentage of the food are imported from foreign countries. 75 per cent.
27. How much do they expend for clothing per head each year. From $5 to $50.
28. What percentage of the clothing is of American manufacture. About 20 per cent.
29. What percentage of the clothing is imported. About 80 per cent.
30. How much of their yearly earnings are sent out of the country. About 80 per cent.
31. What percentage to the amount of earnings. About 80 per cent.
32. To what extent does their employment come in competition with the white industrial classes. Keeping in enforced idleness several hundred white men, women, boys, and girls.

FORM NO. 8. RELATING TO INMATES OF JAILS AND OTHER REFORMATORY INSTITUTIONS.

1. How many inmates are in your county jail and other reformatory institutions in your county? Males, 85; females, 2; Chinese, 3.
2. What are their ages? Males, 12 to 70; females, 35; Chinese, 25 to 30.
3. What are their nationalities? All nationalities are represented.
5. How many of the inmates are employed? 30.
6. What does their employment consist of? Quarrying rock and pumping water.
7. To what extent does their employment come in competition with the labor of mechanics, artisans, and all other white laborers outside of reformatory institutions? Displacing free labor to some extent.

SANTA CRUZ COUNTY.

Statistical Statement made by T. V. Mathews, Assessor of Santa Cruz County.

FORM No. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county or township contain. 253,767.
2. How many acres of land (exclusive of town lots) are under cultivation. 33,256.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 94,200.
4. How many acres of land (exclusive of town lots) are timber land. 120,609.
5. How many acres of land (exclusive of town lots) are open for preëmption. 5,702.
6. What is the maximum price per acre (exclusive of town lots). $250.
7. What is the minimum price per acre (exclusive of town lots). $125.
8. What is the average price per acre (exclusive of town lots). $16.
9. How many ranches are in your county. 1,540.
10. How many ranch owners. 1,540.
11. How many have from three to ten acres. 156.
12. How many have from ten to twenty-five acres. 166.
13. How many have from twenty-five to fifty acres. 117.
14. How many have from fifty to one hundred acres. 161.
15. How many have from one hundred to two hundred and fifty acres. 441.
16. How many have from two hundred and fifty to five hundred acres. 103.
17. How many have from five hundred to one thousand acres. 48.
18. How many have from one thousand to two thousand five hundred acres. 5.
19. How many have from two thousand five hundred to five thousand acres. 7.
20. How many have five thousand acres and over. 7.
21. How many ranches are worked by owners. Estimated, 1,356.
24. How many ranches are rented. Estimated, 190.
25. What is the maximum rent per acre. $8.
26. What is the minimum rent per acre. $3.
27. What is the average rent per acre. $5.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county contain. Estimated, 1,390.
29. What is their value. $489,800.
30. How many miles of fences are in your county. 875.
31. What is their cost per mile. $320.
32. What is the value of all the agricultural implements in your county. $11,480.
33. How many labor-saving agricultural implements are in your county. 60.
34. What is their value. $5,640.
35. What is their combined horse (or man) power. 400.
36. What percentage of ranch cultivators in your county use labor-saving machines. 4 per cent.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county. 348.
38. What are their ages. From 20 to 50.
42. What are the maximum wages paid (including board) per month. $40.
43. What are the minimum wages paid (including board) per month. $10.
44. What are the average wages paid (including board) per month. $24.
45. What industry of agriculture pays the maximum. Harvesting crops.
46. What industry of agriculture pays the minimum. General labor on dairies.
47. How many months in the year are laborers generally employed. 9.
51. What are the average hours of labor per diem. 10.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Yes; he receives wages only for the days he performs labor.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county. Employment can be obtained by proper diligence and search.
68. In what condition are the roads in your county (railroads included). Fair.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. Industry and a willingness to labor.
70. How are the sanitary conditions of the lands in your county. Excellent.

FORM No. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

1. How many asphaltum workers are employed in the whole county. 25. Hours constituting a day's work, 10; Wages paid, maximum, $5; minimum, $2 50; average, $3 50; without board.
7. How many bakers in the whole county. 12. Hours constituting a day's work, maximum, 15; minimum, 10; average, 12. Wages paid, maximum, $60; minimum, $40; average, $50; without board.

8. How many brewers in the whole county. 17. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Wages paid, maximum, $45; minimum, $25; average, $35; without board.
9. How many blacksmiths in the whole county. 49. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2 75; average, $1 50; without board.
10. How many boiler-makers in the whole county. 4. Hours constituting a day's work, 10. Wages paid, maximum, $5; minimum, $4; average, $4; without board.
11. How many brass molders in the whole county. 3. Hours constituting a day's work, 10. Wages paid, maximum, $5; minimum, $3 50; average, $3; without board.
13. How many brick-makers in the whole county. 8. Hours constituting a day's work, 10. Wages paid, maximum, $60; minimum, $50; average, $40; without board.
18. How many cabinet-makers in the whole county. 5. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
21. How many carpenters and joiners in the whole county. 65. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
23. How many carriage and wagon makers in the whole county. 12. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
26. How many cigar-makers in the whole county, 4. Hours constituting a day's work, 10. Wages paid, maximum, $75; minimum, $50; average, $60; without board.
27. How many confectioners in the whole county. 5. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $3; average, $2 50; without board.
29. How many coopers in the whole county. 25. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, $60; with board.
30. How many coppersmiths in the whole county. 5. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2 50; average, $3; without board.
33. How many employés in butter and cheese dairies in the whole county. 85. Hours constituting a day's work, 12. Wages paid, maximum, $60; minimum, $20; average, $25; with board.
36. How many glue-makers in the whole county. 4. Hours constituting a day's work, 10. Wages paid, maximum, $50; minimum, $40; average, $45; without board.
37. How many gunsmiths in the whole county. 4. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2 50; average, $3; without board.
39. How many iron molders in the whole county. 4. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2 50; average, $3; without board.
41. How many locksmiths in the whole county. 6. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
42. How many employés in limekilns in the whole county. 140. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Wages paid, maximum, $50; minimum, $40; average, $45; with board.
43. How many machinists in the whole county. 10. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $3; average, $3; without board.
44. How many marble-cutters in the whole county. 5. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $1 50; average, $2 50; without board.
46. How many millers in the whole county. 5. Hours constituting a day's work, 10. Wages paid, maximum, $100; minimum, $50; average, $60; without board.
47. How many pattern-makers in the whole county. 2. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $3; average, $3 25; without board.
48. How many employés in paper mills in the whole county. 70. Hours constituting a day's work, 10. Wages paid, maximum, $70; minimum, $50; average, $60; without board.
50. How many employés in powder mills in the whole county. 60. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $1 95; average, $2; without board.
51. How many plumbers in the whole county. 6. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2 50; average, $3; without board.
54. How many saddlers and harness-makers in the whole county. 12. Hours constituting a day's work, 10. Wages paid, maximum, $75; minimum, $60; average, $50; without board.
58. How many shingle-makers in the whole county. 36. Hours constituting a day's work, 10. Wages paid, maximum, $60; minimum, $35; average, $45; with board.
59. How many shoemakers in the whole county. 30. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
60. How many soda works employés in the whole county. 4. Hours constituting a day's work, 10. Wages paid, maximum, $50; minimum, $30; average, $35; without board.
61. How many stone-cutters in the whole county. 4. Hours constituting a day's work, 10. Wages paid, maximum, $5; minimum, $3; average, $3 50; without board.
62. How many tailors in the whole county. 10. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $1 50; average, $2 25; without board.
63. How many tanners in the whole county. 84. Hours constituting a day's work, 10. Wages paid, maximum, $50; minimum, $30; average, $40; with board.
64. How many tinsmiths in the whole county. 16. Hours constituting a day's work, 10. Wages paid, maximum, $3 50; minimum, $2 50; average, $3; without board.

65. How many upholsterers in the whole county. 6. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2 50; average, $3; without board.

FORM NO. 3. RELATING TO MINES AND MINERS (CHINESE EXCLUDED).

1. How many asphaltum mines are in your county. 2.
2. How many asphaltum miners are in your county. 10. Hours constituting a day's work, 10. Number of months employed in the year, 8. Wages paid, maximum, $3 50; minimum, $2; average, $2 75; without board.
5. How many gold placer mines are in your county. 1.
6. How many gold placer miners are in your county. 5. Hours constituting a day's work, 10. Number of months employed in the year, 6. Wages paid, maximum, $7; minimum, $6; average, $5; without board.
25. How many limestone quarries are in your county. 6.
26. How many limestone miners are in your county. 41. Hours constituting a day's work, 11. Number of months employed in the year, 9. Wages paid, maximum, $63; minimum, $53; average, $55; with board.

FORM NO. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

1. How many miles of steam railroads in operation are in your county. 55.
2. How many employés of all kinds on above are in your county. 63. Average hours per day, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $150; minimum, $46; average, $55; without board.
5. How many miles of street railroads (horse-power) are in your county. 2½.
7. How many conductors are engaged thereon in your county. 4. Average hours per day, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $60; minimum, $50; average, $55; without board.
11. How many stage drivers in your county. 4. Average hours per day, 8. Average number of months engaged per annum, 12. Wages paid, maximum, $60; minimum, $55; average, $50; without board.
12. How many teamsters hauling, etc., in your county. 260. Average hours per day, 10. Average number of months engaged per annum, 9. Wages paid, maximum, $75; minimum, $35; average, $50; without board.
13. How many draymen hauling, etc., in your county. 30. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $50; minimum, $40; average, $45; without board.
14. How many agents, railroad, stage, express, and steamboat, in your county. 10. Average hours per day, 8. Average number of months engaged per annum, 12. Wages paid, maximum, $80; minimum, $35; average, $58; without board.
15. How many men are engaged in express companies in your county. 10. Average hours per day, 14. Average number of months engaged per annum, 12. Wages paid, maximum, $90; minimum, $60; average, $70; without board.

FORM NO. 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

1. How many auctioneers are employed in your county. 2.
4. How many barbers are employed in your county. 25. Hours constituting a day's work, maximum, 14; minimum, 12; average, 11. Average number of months engaged per annum, 12. Wages paid, maximum, $70; minimum, $50; average, $60; without board.
5. How many bookkeepers in all departments in your county. 10. Hours constituting a day's work, maximum, 11; average, 10. Average number of months engaged per annum, 10. Wages paid, maximum, $100; minimum, $50; average, $60; without board.
6. How many bricklayers in your county. 14. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $3; average, $3 50; without board.
7. How many clerks are employed in banking institutions in your county. 4. Hours constituting a day's work, maximum, 7; minimum, 6; average, 6½. Average number of months engaged per annum, 12. Wages paid, maximum, $150; minimum, $100; average, $125; without board.
10. How many clerks are employed in general merchandising in your county. 102. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Average number of months engaged per annum, 12. Wages paid, maximum, $75; minimum, $12; average, $43; without board.
11. How many clerks are employed in county and town governments in your county. 8. Hours constituting a day's work, maximum, 14; minimum, 8; average, 10. Average number of months engaged per annum, 6. Wages paid, maximum, $100; minimum, $40; average, $70; without board.
12. How many cooks are employed in your county. 60. Males, 50; females, 10. Hours constituting a day's work, maximum, 14; minimum, 11; average, 13. Average number of months engaged per annum, 9. Wages paid, males, maximum, $80; minimum, $20; average, $35. Females, maximum, $25; minimum, $20; average, $22; with board.

13. How many dentists are employed in your county. 7. Hours constituting a day's work, maximum, 9; minimum, 7; average, 8. Average number of months engaged per annum, 12. Wages paid, maximum, $75; minimum, $50; average, $65; without board.
16. How many dress and cloak makers are employed in your county. 63. Hours constituting a day's work, maximum, 12; minimum, 9; average, 10. Wages paid, maximum, $1 50; minimum, 50 cents; average, $1; without board.
17. How many engravers in your county. 4. Hours constituting a day's work, 10. Average number of months engaged per annum, 1. Wages paid, maximum, $4; minimum, $3; average, $3 50; without board.
19. How many engineers (stationary engines) in your county. 41. Hours constituting a day's work, maximum, 12; minimum, 10; average, 11. Average number of months engaged per annum, 8. Wages paid, maximum, $75; minimum, $30; average, $50; without board.
21. How many florists and gardeners in your county. 6. Hours constituting a day's work, 10. Average number of months engaged per annum, 8. Wages paid, maximum, $3; minimum, $2 50; average, $2 75; without board.
22. How many fishermen in your county. 41. Hours constituting a day's work, maximum, 18; minimum, 8; average, 13. Average number of months engaged per annum, 10. Wages paid, maximum, $120; minimum, $40; average, $60; without board.
23. How many glaziers in your county. 5. Hours constituting a day's work, 10. Average number of months engaged per annum, 2. Wages paid, maximum, $4; minimum, $3 50; average, $3 75; without board.
24. How many journalistic editors in your county. 5. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, $85; without board.
26. How many hod carriers in your county. 10. Hours constituting a day's work, 10. Average number of months engaged per annum, 8. Wages paid, maximum, $2 50; minimum, $1 50; average, $2; without board.
27. How many hostlers in your county. 43. Hours constituting a day's work, maximum, 16; minimum, 8; average, 12. Average number of months engaged per annum, 6. Wages paid, maximum, $60; minimum, $50; average, $40; with board.
30. How many lumbermen in your county. 582. Hours constituting a day's work, 10. Average number of months engaged per annum, 9. Wages paid, maximum, $65; minimum, $45; average, $55; with board.
31. How many milliners in your county. 21. Hours constituting a day's work, maximum, 10; minimum, 11; average, 11. Average number of months engaged per annum, 10. Wages paid, maximum, $1 50; minimum, 50 cents; average, $1; without board.
32. How many painters (house) in your township. 20. Hours constituting a day's work, 10. Average number of months engaged per annum, 6. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
33. How many fresco painters are employed in your county. 2. Hours constituting a day's work, 10. Average number of months engaged per annum, 3. Wages paid, maximum, $4; minimum, $3; average, $3 50; without board.
34. How many plasterers are employed in your county. 15. Hours constituting a day's work, 10. Average number of months engaged per annum, 10. Wages paid, maximum, $4; minimum, $3 50; average, $3; without board.
35. How many printers are employed in your county. 17. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $1; average, $2; without board.
36. How many photographers are employed in your county. 6. Males, 3; females, 3. Hours constituting a day's work, 10. Average number of months engaged per annum, 11. Wages paid to males, maximum, $65; minimum, $25; average, $45; without board. Females, $30; without board.
37. How many school teachers are employed in your county. 82. Males, 12; females, 70. Hours constituting a day's work, 6. Average number of months engaged per annum, 8. Wages paid to males, maximum, $130; minimum, $60; average, $77; without board. Females, maximum, $80; minimum, $40; average, $54; without board.
38. How many seamstresses are engaged in your county. 20. Hours constituting a day's work, 10. Average number of months engaged per annum, 8. Wages paid, maximum, $1 50; minimum, 75 cents; average, $1 25; without board.
39. How many servants (domestic) are employed in your county. 90. Males, 70; females, 20. Hours constituting a day's work, 12. Average number of months engaged per annum, 9. Wages paid to males, maximum, $25; minimum, $10; average, $15; with board. Females, maximum, $25; minimum, $10; average, $15; with board.
40. How many telegraph operators are employed in your county. 5. Hours constituting a day's work, maximum, 12; minimum, 4; average, 11. Average number of months engaged per annum, 12. Wages paid, maximum, $75; minimum, $40; average, $60; without board.
41. How many telegraph messenger boys are employed in your county. 2. Hours constituting a day's work, maximum, 12; minimum, 4; average, 11. Average number of months engaged per annum, 12. Wages paid, maximum, $15; minimum, $10; average, $12; without board.

42. How many waiters (restaurant, hotel, etc.) are employed in your county. 74. Males, 50; females, 24. Hours constituting a day's work, maximum, 13; minimum, 12; average, 12½. Average number of months engaged per annum, 7. Wages paid to males, maximum, $30; minimum, $15; average, $20; with board. Females, maximum, $20; minimum, $15; average, $17; with board.
43. How many watch-makers are employed in your county. 8. Hours constituting a day's work, maximum, 15; minimum, 10; average, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $100; minimum, $75; average, $85; without board.
46. How many wood carvers and turners are employed in your county. 3. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3 50; minimum, $2 50; average, $3; without board.
47. How many wood-cutters are employed in your county. 320. Hours constituting a day's work, 10. Average number of months engaged per annum, 9. Wages paid, maximum, $2 50; minimum, $2; average, $2 25; without board.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county. $5,160,220.
2. What is the total value of all the buildings in the towns of your county. $1,681,320.
3. What is the total value of all the machineries used for mechanical and manufacturing purposes. $81,320.
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county. Not any.
6. Are any trade unions in your county. No.
14. What is the cost of food or board per month. $14 to $20.
15. What is the cost of fuel. Wood, $6 per cord.
16. What is the cost of water for household purposes per month. $1 50.
17. What is the cost of water for irrigation purposes. 14 cents per square yard; gardens, $1 per acre.
24. How many corporations (local) are in your county. 9.
25. Name them. Santa Cruz County Bank, capital stock, $100,000; Santa Cruz Bank of Savings and Loan, capital stock, $500,000; Bank of Watsonville, capital stock, $200,000; Loma Prieta Mill and Lumber Company, capital stock, $300,000; Pacific Avenue Street Railroad Company, capital stock, $100,000; Santa Cruz Water Company, capital stock, $100,000; Santa Cruz Gas Company, capital stock, $30,000; Santa Cruz Fair Building Association, capital stock, $10,000; Santa Clara Valley Mill and Lumber Company, capital stock, $200,000.
27. Name the cash capital invested in them. $800,000, aggregate.
28. Total amount of hands employed in each. 360.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county. Males, 450; females, 10.
5. How many of them are married. 5.
6. How many of them are employed. 450.
7. How many of them are domestic servants. 40.
8. What wages are paid to domestic servants per week. $5; per month, $20; with board.
9. How many of them are cooks. 32.
10. What wages are paid to them per week. $5; per month, $20; with board.
11. How many are laundrymen. 85.
12. What wages do they earn per week. $4; per month, $16; with board.
13. How many Chinese laundries are in your county. 10.
14. How many Chinese do they employ in your county. 42.
15. How many Chinese cultivate the soil in your county. 124.
16. What wages are paid them per month with board. $20.
20. Name the various industries and number employed in each of them. Clearing land and cultivating, 217; besides those enumerated above.

SIERRA COUNTY.

Statistical Statement made by W. T. Luther, Assessor of Sierra County.

Form No. 1. Relating to Agriculture.

2. How many acres of land (exclusive of town lots) are under cultivation. About 3,000.
6. What is the maximum price per acre (exclusive of town lots). About $25.
7. What is the minimum price per acre (exclusive of town lots). About $1 25.
8. What is the average price per acre (exclusive of town lots). $8.
9. How many ranches are in your county. About 130.
10. How many ranch owners. About 130.
14. How many have from fifty to one hundred acres. 12.
15. How many have from one hundred to two hundred and fifty acres. 64.
16. How many have from two hundred and fifty to five hundred acres. 45.

17. How many have from five hundred to one thousand acres. 12.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Yes.
55. How many road laborers are in your county. About 20.
56. What is the wages paid to them. $3.
57. What is the laborer's condition in general. Morally, fair; physically, good; mentally, fair.
68. In what condition are the roads in your county (railroads excluded). Good.
70. How are the sanitary conditions of the lands in your county. First class.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

8. How many brewers in the whole county. 5. Wages paid, $2 50.
9. How many blacksmiths in the whole county. About 30. Wages paid, $3 50.
13. How many brick-makers in the whole county. 5. Wages paid, $3.
18. How many cabinet-makers in the whole county. 2.
21. How many carpenters and joiners in the whole county. 20. Wages paid, $5.
23. How many carriage and wagon makers in the whole county. 2.
33. How many employés in dairies in the whole county. About 50. Wages paid, about $40 per month; with board.
39. How many iron molders in the whole county. 3. Wages paid, $3.
43. How many machinists in the whole county. 2. Wages paid, $5.
47. How many pattern-makers in the whole county. 1. Wages paid, $6.
54. How many saddlers and harness makers in the whole county. 1.
57. How many sash, door, and blind makers in the whole county. 1.
58. How many shingle-makers in the whole county. 5. Wages paid, $3.
59. How many shoe-makers in the whole county. 13.
64. How many tinsmiths in the whole county. 1. Wages paid, $4.

Form No. 3. Relating to Mines and Miners (Chinese Excluded).

5. How many gold placer mines are in your county. About 30.
6. How many gold placer miners are in your county. About 300. Hours constituting a day's work, 10. Number of months employed in the year, 12. Wages paid, $2; with board.
7. How many gold quartz mines are in your county. Now working, 12.
8. How many gold quartz miners in your county. About 400. Hours constituting a day's work, 10. Number of months employed in the year, 12. Wages paid, about $40 per month; with board.
9. How many gold hydraulic mines are in your county. About 30.
10. How many gold hydraulic miners are in your county. 200. Hours constituting a day's work, 12. Number of months employed in the year, 3. Wages paid, $2; with board.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

1. How many miles of steam railroads in operation are in your county. 6.
11. How many stage drivers in your county. 5.
12. How many teamsters hauling, etc., in your county. About 25.
13. How many draymen hauling, etc., in your county. 4.
14. How many agents, railroad, stage, express, and steamboat, in your county. 6.

Form 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

4. How many barbers are employed in your county. 10. Hours constituting a day's work, 10. Average number of months engaged per annum, 12.
5. How many bookkeepers in all departments in your county. About 12.
10. How many clerks employed in general merchandising in your county. About 8. Hours constituting a day's work, 12. Average number of months engaged per annum, 12.
11. How many clerks are employed in county and town governments in your county. 2.
12. How many cooks are employed in your county. About 50. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $2 50; with board.
13. How many dentists are employed in your county. 2.
18. How many engineers (civil) in your county. 4.
19. How many engineers (stationary engines) in your county. 6.
24. How many journalistic editors in your county. 3.
28. How many laundrymen in your county. 20. All Chinamen.
32. How many painters (house) in your county. 6. Wages paid, $5; without board.
34. How many plasterers are employed in your county. 2. Wages paid, $5; without board.
35. How many printers are employed in your county. 3.

37. How many school teachers are employed in your county. About 25. Males, 6; females, 19. Average number of months engaged per annum, 8. Wages paid, males, $100; females, $80.
39. How many servants (domestic) are employed in your county. 30.
40. How many telegraph operators are employed in your county. 4. Wages paid, females, $16 per month.
42. How many waiters (restaurant, hotel, etc.,) are employed in your county. About 35.
43. How many watch-makers are employed in your county. 3.
47. How many wood-cutters are employed in your county. About 60. Average number of months engaged per annum, 3.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county. About $860,000.
2. What is the total value of all the buildings in the towns of your county. $80,000.
6. Are any trade unions in your county. None.
15. What is the cost of fuel. Wood, $5.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese in your county. Males, 400; females, 50.
3. What are their social habits. Very good.
4. What are their sanitary habits. Good.
6. How many of them are employed. Most of them are miners.
7. How many of them are domestic servants. Very few.
10. What wages are paid to them per week. $4; per month, $16; with board.
11. How many are laundrymen. About 25.
13. How many Chinese laundries are in your county. About 12.
14. How many Chinese do they employ in your county. About 25.

Form No. 8. Relating to Inmates of Jails and Other Reformatory Institutions.

1. How many inmates are in your county jail and other reformatory institutions in your county. 1.
5. How many of the inmates are employed. None.

SISKIYOU COUNTY.

Statistical Statement made by the Assessor of Siskiyou County.

Form No. 1. Relating to Agriculture.

1. How many acres of land does your county or township contain. 6,000 square miles.
2. How many acres of land are under cultivation. 20,000.
3. How many acres of land are unfit for cultivation. Seven eighths of county.
4. How many acres of land are timber land. Seven eighths.
5. How many acres of land are open for preëmption. All not taken, which consists of timber and desert.
6. What is the maximum price per acre. $31 25.
7. What is the minimum price per acre. $1 25.
8. What is the average price per acre. $16 25.
9. How many ranches are in your county. 500.
10. How many ranch owners, 500.
14. How many have from fifty to one hundred acres. 50.
15. How many have from one hundred to two hundred and fifty acres. 200.
16. How many have from two hundred and fifty to five hundred acres. 200.
17. How many have from five hundred to one thousand acres. 25.
18. How many have from one thousand to two thousand five hundred acres. 75.
25. What is the maximum rent per acre. About one third of crop.
27. What is the average rent per acre. One third.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county. About 1,000.
38. What are their ages. From 15 to 45.
42. What are the maximum wages paid (including board) per month. $40.
43. What are the minimum wages paid (including board) per month. $25.
44. What are the average wages paid (including board) per month. $32 50.
45. What industry of agriculture pays the maximum. Stock raising.
46. What industry of agriculture pays the minimum. Working on the farm by the year.
47. How many months in the year are laborers generally employed. 8.
48. When unemployed in agriculture what industry do they pursue to gain a livelihood. In mining or herding stock.

52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Yes.

FORM NO. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

7. How many bakers in the whole county. 2. Hours constituting a day's work, 8. Wages paid, $60; without board.
8. How many brewers in the whole county. 5. Hours constituting a day's work, 8. Wages paid, $60; without board.
9. How many blacksmiths in the whole county. 23. Hours constituting a day's work, 8. Wages paid, maximum, $75; minimum, $30; average, $45; without board.
21. How many carpenters and joiners in the whole county. 26. Hours constituting a day's work, 8. Wages paid, maximum, $4; minimum, $2; average, $3 25; without board.
33. How many employés in dairies in the whole county. 20. Hours constituting a day's work, 8. Wages paid, maximum, $45; minimum, $30; average, $37 50; with board.
37. How many gunsmiths in the whole county. 1. Sole owner, and works no hands.
54. How many saddlers and harness-makers in the whole county. 2. Sole owners; employ no hands.
58. How many shingle-makers in the whole county. 10. Hours constituting a day's work, 8. Wages paid, $40; with board.
59. How many shoe-makers in the whole county. 7. Hours constituting a day's work, 8. Wages paid, $60; without board.
61. How many stone-cutters in the whole county. 3. Work their own quarries.
62. How many tailors in the whole county. 1. Does his own work.
64. How many tinsmiths in the whole county. 4. Hours constituting a day's work, 8. Wages paid, maximum, $50; minimum, $30; average, $40; with board.

FORM NO. 3. RELATING TO MINES AND MINERS (CHINESE EXCLUDED).

5. How many gold placer mines are in your county. 150.
6. How many gold placer miners are in your county. 900. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9. Number of months employed in the year, 6. Wages per day, maximum, $4; minimum, $2 50; average, $2 75; with board.
7. How many gold quartz mines in your county. 12.
8. How many gold quartz miners in your county. 150. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9. Number of months employed in the year, 8. Wages per day, maximum, $4; minimum, $2; average, $3; with board.
9. How many gold hydraulic mines in your county. 13. Number of miners, 65. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9. Number of months employed in the year, 4. Wages per day, maximum, $5; average, $3; with board.
14. How many gravel mines are in your county. 5. Number of miners, 40. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9. Number of months employed in the year, 8. Wages per day, maximum, $4; average, $2 50; with board.
27. How many sandstone quarries are in your county. 3. Not worked to any extent.

FORM NO. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

1. How many stage drivers in your county. 8. Miles of road, 140. Hours per day, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $50; minimum, $45; average $47; with board.

FORM NO. 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

4. How many barbers are employed in your county. 4. All are owners of shops.
7. How many clerks are employed in banking institutions in your county. 3. Hours constituting a day's work, 7. Average number of months engaged per annum, 12. Wages paid, maximum, $125; minimum, $75; average, $125; without board.
10. How many clerks employed in general merchandising in your county. 20. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $75; minimum, $30; average, $52 50; without board.
11. How many clerks are employed in county and State governments in your county. 3. Hours constituting a day's work, 8. Average number of months engaged per annum, 10. Wages paid, maximum, $150; minimum, $100; average, $116; without board.
13. How many dentists are employed in your county. 2. Average number of months engaged per annum, 12. Both are sole owners.
24. How many journalistic editors in your county. 2. Hours constituting a day's work, 12. Sole owners.
31. How many milliners in your county. 3. All are owners and do their own work.

32. How many printers in your county. 8. Males, 6; females, 2. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, maximum, $60; minimum, $20; average, $30; with board.
34. How many plasterers are employed in your county. 2. Hours constituting a day's work, 8. Average number of months engaged per annum, 8. Wages paid, $75; with board.
35. How many painters are employed in your county. 4. Hours constituting a day's work, 8. Average number of months engaged per annum, 8. Wages paid, $75; with board.
36. How many photographers are employed in your county. 2. Sole owners; do their own work.
37. How many school teachers are employed in your county. 35. Males, 19; females, 13. Hours constituting a day's work, 6. Average number of months engaged per annum, 6. Wages paid, males, maximum, $100; minimum, $50; average, $75; females, maximum, $80; minimum, $50; average, $65; without board.
40. How many telégraph operators are employed in your county. 5. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $100; average, $90; without board.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county. $1,295,203.
2. What is the total value of all the buildings in the towns of your county. $265,310.
3. What is the total value of all the machineries used for mechanical and manufacturing purposes. $5,000.
4. What is the total value of all materials used in manufactures of your county. $12,000.
6. Are any trade unions in your county. No.
9. How are the sanitary conditions of the workshops of mechanics and manufacturers. Good.
10. How are the sanitary conditions of the dwellings of the wage workers. Good.
15. What is the cost of fuel. Wood, $4 to $6 per cord; coal, none.
17. What is the cost of water for irrigation purposes. 25 cents per inch.
18. How many poor people live in your county. Males, 20.
20. The cause. Intemperance, rheumatism, and general delibity.
23. What suggestions can you make to ameliorate their condition. None; unless it would be to purchase a "poor house farm," which might be made self-sustaining. Under the present system of county hospital, it enables too many drunks to sober off at the expense of the county.
24. How many corporations (local) are in your county. 2.
25. Name them. Siskiyou County Bank; Black Bear Quartz Mining Company.
26. Name capital stock of each. Siskiyou County Bank, $200,000. The Black Bear Quartz Mining Company, four or five years ago, was considered very valuable; but at present we can place no value on the stock, as the former company have sold, and the present owners are prospecting.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county. 1,458; females, 32.
2. What are their conditions. Good, upon an average.
3. What are their social habits. Very bad; as my basis is taken from the assessment estimate and census reports, which show that only eight are married out of a population of thirty-two females.
4. What are their sanitary habits. Dirty; with poor ventilation and crowded houses.
5. How many of them are married. 8.
7. How many of them are domestic servants. 25.
8. What wages are paid to domestic servants per month. $20; with board.
9. How many of them are cooks. 75.
11. How many are laundrymen. 15.
12. What wages do they earn per week. $10; per month, $40 to $50; with board.
13. How many Chinese laundries are in your county. 5.
14. How many Chinese do they employ in your county. All are part owners.
15. How many Chinese cultivate the soil in your county. 6.
16. What wages are paid them per month with board. $30.
17. How many Chinese miners are in your county. 1,200.
18. What wages do they earn. $30 to $35; without board.
19. How many of them are employed in manufactures of all kinds. None.
20. Name the various industries and number employed in each of them. 1,200 miners, 6 cultivate the soil, 15 work in sawmills, 25 domestic servants, 75 cooks, 15 laundrymen, 122 loafers and idle.
21. What are the wages paid them in each of the industries employed. The miners are paid from $30 to $35 per month, but the greater portion work their own claims; in sawmills, $20 to $30 per month; domestic servants average about $20 per month; cooks average about $20 per month, with board.
23. How much do they expend for rent, collectively, per month. $12.

25. What percentage of the food are home products. 50.
26. What percentage of the food are imported from foreign countries. 50.
27. How much do they expend for clothing per head each year. $25.
28. What percentage of the clothing is of American manufacture. 50.
30. How much of their yearly earnings are sent out of the country. One half.
31. What percentage to the amount of earnings. 50.
32. To what extent does their employment come in competition with the white industrial classes. They reduce the wages in the mines by working for one third less than the whites. The cooks have entirely superseded white labor. No competition against the whites on the farms, and in the few sawmills they work by the month for one third less than the whites.

SONOMA COUNTY.

Statistical Statement made by G. W. Lewis, Assessor of Sonoma County.

Form No. 1. Relating to Agriculture.

1. How many acres of land (exclusive of town lots) does your county contain. 785,459½.
2. How many acres of land (exclusive of town lots) are under cultivation. 250,000.
3. How many acres of land (exclusive of town tots) are unfit for cultivation. 300,000.
4. How many acres of land (exclusive of town lots) are timber land. 100,000.
5. How many acres of land (exclusive of town lots) are open for preëmption. 100,000.
6. What is the maximum price per acre (exclusive of town lots). $300.
7. What is the minimum price per acre (exclusive of town lots). $5.
8. What is the average price per acre (exclusive of town lots). $50.
9. How many ranches are in your county. 4,500.
10. How many ranch owners. 4,500.
11. How many have from three to ten acres. 850.
12. How many have from ten to twenty-five acres. 500.
13. How many have from twenty-five to fifty acres. 800.
14. How many have from fifty to one hundred acres. 1,200.
15. How many have from one hundred to two hundred and fifty acres. 600.
16. How many have from two hundred and fifty acres to five hundred acres. 225.
17. How many have from five hundred to one thousand acres. 150.
18. How many have from one thousand to two thousand five hundred acres. 100.
19. How many have from two thousand five hundred to five thousand acres. 50.
20. How many have five thousand acres and over. 25.
21. How many ranches are worked by owners. Most of them.
24. How many ranches are rented. About 500.
25. What is the maximum rent per acre. $10.
26. What is the minimum rent per acre. $3.
27. What is the average rent per acre. $6.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county contain. About 12,000.
29. What is the value. About $4,000,000.
30. How many miles of fences are in your county. Value, about $100,000.
31. What is their cost per mile. $250.
32. What is the value of all the agricultural implements in your county. $200,000.
33. How many labor-saving agricultural implements in your county. Not enumerated.
34. What is their value. About $100,000.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county. About 2,000.
38. What are their ages. From 15 to 50, and over.
39. How many are under fifteen years of age. Very few, if any.
42. What are the maximum wages paid (including board) per month. $30.
43. What are the minimum wages paid (including board) per month. $20.
44. What are the average wages paid (including board) per month. $25.
45. What industry of agriculture pays the maximum. Grape raising.
46. What industry of agriculture pays the minimum. Hop raising.
47. How many months in the year are laborers generally employed. Mostly all the year around.
48. When unemployed in agriculture what industry do they pursue to gain a livelihood. Work at anything they can get a chance at.
51. What are the average hours of labor per diem. 12.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness a laborer must abstain from work, are any deductions made from his wages. Yes.
55. How many road laborers are in your county. Farmers and their hired men work the roads.
56. What is the wages paid to them. $2.

57. What is the laborer's condition in general. Morally, fair; physically, good; mentally, average.
58. How many laborers (exclusive of Chinese) are in your county unemployed. None but tramps.
65. What are the causes of their idleness. (Please state everything you know about it.) Being habitual tramps they prefer to spend the winter months in the county jail.
68. In what condition are the roads in your county (railroads excluded). Very good.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. Practice sobriety; be industrious, steady, and willing to work and there will be no necessity of begging and tramping.
70. How are the sanitary conditions of the lands in your county. Very good.

FORM NO. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

7. How many bakers in the whole county. 30. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; with board.
8. How many brewers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; with board.
9. How many blacksmiths in the whole county. 75. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
12. How many bookbinders in the whole county. 2. Hours constituting a day's work, 10. Wages paid, $4; without board.
13. How many brick-makers in the whole county. None but Chinese. 50. Hours constituting a day's work, 10. Wages paid, $2; without board.
20. How many canneries (fish, fruit, etc.) employés in the whole county. 100. Hours constituting a day's work, 10. Wages paid, maximum, $1; minimum, 50 cents; average, 75 cents; without board.
21. How many carpenters and joiners in the whole county. 150. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
23. How many carriage and wagon makers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
26. How many cigar-makers in the whole county. 20. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
27. How many confectioners in the whole county. 15. Hours constituting a day's work, 10. Wages paid, maximum, $2 50; minimum, $1 50; average, $2; without board.
29. How many coopers in the whole county. 50. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
32. How many employés in distilleries in the whole county. 100. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
33. How many employés in dairies in the whole county. 200. Hours constituting a day's work, 12. Wages paid, $1; with board.
37. How many gunsmiths in the whole county. 5. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
43. How many machinists in the whole county. 30. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
45. How many employés in watch factories in the whole county. 50. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
54. How many saddlers and harness-makers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
58. How many shingle-makers in the whole county. 100. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
59. How many shoe-makers in the whole county. 100. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
60. How many soda works employés in the whole county. 20. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
61. How many stone-cutters in the whole county. 400. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
62. How many tailors in the whole county. 100. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
63. How many tanners in the whole county. 20. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
64. How many tinsmiths in the whole county. 40. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
65. How many upholsterers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
66. How many wheelwrights in the whole county. 15. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
67. How many wine manufacturers in the whole county. 100. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.

70. How many of the aforementioned professions are unemployed. None.
74. How do they manage to subsist. Should there be any who from some cause and another be unemployed in their respective trades, they would be compelled to do something else. However, no skillful, sober, industrious mechanic who is willing to work need be idle.

FORM NO. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

1. How many miles of steam railroads in operation are in your county. 118.
2. How many employés of all kinds on above are in your county. 200. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
5. How many miles of street railroads (horse-power) are in your county. 2.
6. How many men are engaged thereon in your county. 2. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid, $2; without board.
11. How many stage drivers in your county. 20. Average hours per day, 12. Average number of months engaged per annum, 12. Wages paid, $2 50; with board.
12. How many teamsters hauling, etc., in your county. 50. Average hours per day, 12. Average number of months engaged per annum, 12. Wages paid, $2 50; with board.
13. How many draymen hauling, etc., in your county. 30. Average hours per day, 12. Average number of months engaged per annum, 12. Wages paid, $2 50; with board.
14. How many agents, railroad, stage, express, and steamboat, in your county. 50. Average hours per day, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $3; average, $3 50; without board.
15. How many men are engaged in express companies in your county. 50. Average hours per day, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $3; average, $3 50; without board.

FORM NO. 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

1. How many auctioneers are employed in your county. 3. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, $5; without board.
4. How many barbers are employed in your county. 100. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $1; average, $2; without board.
5. How many bookkeepers, in all departments, in your county. 150. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
6. How many bricklayers in your county. 75. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
7. How many clerks are employed in banking institutions in your county. 20. Hours constituting a day's work, 6. Average number of months engaged per annum, 12. Wages paid, maximum, $10; minimum, $5; average, $7 50; without board.
8. How many clerks are employed in insurance offices in your county. 25. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, $3; without board.
10. How many clerks are employed in general merchandising in your county. 200. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
11. How many clerks are employed in county and town governments in your county. 8. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, maximum, $10; minimum, $5; average, $7 50; without board.
12. How many cooks are employed in your county. 100. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $2; minimum, $1; average, $1 50; with board.
13. How many dentists are employed in your county. 15. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, maximum, $5; minimum, $3; average, $4; without board.
18. How many engineers (civil) in your county. 5. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
19. How many engineers (stationary engines) in your county. 15. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
21. How many florists and gardeners in your county. 10. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $1; average, $2; with board.
23. How many glaziers in your county. 15. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $1; average, $2; without board.

24. How many journalists and reporters in your county. 10. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
27. How many hostlers in your county. 100. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $2; minimum, $1; average, $1 50; with board.
30. How many lumbermen in your county. 300. Hours constituting a day's work, 10. Average number of months engaged per annum, 9. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
31. How many milliners in your county. 30. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $2; minimum, $1; average, $1 50; without board.
32. How many house painters are employed in your county. 60. Hours constituting a day's work, 10. Average number of months engaged per annum, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
34. How many plasterers are employed in your county. 20. Hours constituting a day's work, 10. Average number of months engaged per annum, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
35. How many printers are employed in your county. 100. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
36. How many photographers are employed in your county. 15. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
37. How many school teachers are employed in your county. 150. Males, 20; females, 130. Hours constituting a day's work, maximum, 8; minimum, 6; average, 7. Average number of months engaged per annum, 10. Wages paid, males, maximum, $4; minimum, $2; average, $3. Wages paid, females, maximum, $3; minimum, $1 50; average, $2 25; without board.
39. How many servants (domestic) are employed in your county. 200. Males, 50; females, 150. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, males, maximum, $2; minimum, $1; average, $1 50. Wages paid, females, maximum, $2; minimum, $1; average, $1 50; with board.
40. How many telegraph operators are employed in your county. 50. Males, 30; females, 20. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, males, maximum, $4; minimum, $2; average, $3. Wages paid, females, maximum, $3; minimum, $2; average, $2 50; without board.
41. How many telegraph messenger boys are employed in your county. 20. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $2; minimum, $1; average, $1 50; without board.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. 150. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $2; minimum, $1; average, $1 50; with board.
43. How many watch-makers are employed in your county. 20. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
44. How many well-borers (artesian) are employed in your county. 2. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
47. How many wood-cutters are employed in your county. 150. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
48. How many artisans not above enumerated are employed in your county. 300. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
49. How many of foregoing mentioned professions are unemployed. None that are willing to work.

FORM NO. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county. $15,000,000.
2. What is the total value of all the buildings in the towns of your county. $2,000,000.
3. What is the total value of all the machineries used for mechanical and manufacturing purposes. $100,000.
4. What is the total value of all materials used in manufactures in your county. $1,000,000.
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county. Very little, if any.
6. Are any trade unions in your county. No.
9. How are the sanitary conditions of the workshops of mechanics and manufacturers. Very good.
10. How are the sanitary conditions of the dwellings of the wage workers. Fair.
11. What percentage of dwellings are owned by them. Hardly any.
12. What is the cost of rent of dwellings generally occupied by the wage workers. From $5 to $10 per month.
14. What is the cost of food or board per month. $20.

15. What is the cost of fuel. Wood, $4 per cord.
16. What is the cost of water for household purposes per month. $1 50.
18. How many poor people live in your county. Males, 35; females, 15.
19. Their ages. From 40 to 80.
20. The cause. Age, disease; family of small children with only mother left for support. Nationality, mixed.
22. What are their conditions. Sanitary, fair; morally, fair.
24. How many corporations (local) are in your county. 17.
25. Name them. Savings Bank of Santa Rosa, Santa Rosa Woolen Mills, Santa Rosa Bank, Santa Rosa Winery, Santa Rosa Flouring Mill, Santa Rosa Nursery, Santa Rosa Fruit Preserving Company, Santa Rosa Water Company, Santa Rosa Street Railroad Company, Santa Rosa Tannery, Santa Rosa Gas Company, Santa Rosa Agricultural Park Association, Santa Rosa Brewery, Santa Rosa Planing Mill, Petaluma Savings Bank, Bank of Sonoma County, Perceval Milling Company, Sonoma Valley Bank, Bank of Healdsburg, F. and M. Bank, Petaluma Water Company.
27. Name cash capital invested in them. $2,500,000.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county. Males, 1,500; females, 25.
2. What are their conditions. Extremely bad.
3. What are their social habits. Degenerating to the white inhabitants.
4. What are their sanitary habits. Bad, filthy; the worst in the world.
6. How many of them are employed. 80 per cent.
7. How many of them are domestic servants. 75 per cent.
8. What wages are paid to domestic servants per week. $5; per month, $20; with board.
9. How many of them are cooks. All.
11. How many are laundrymen. All.
13. How many Chinese laundries are in your county. Every Chinese house is a laundry.
15. How many Chinese cultivate the soil in your county. 200.
22. What is the gross amount paid them yearly in every branch in which they are engaged. $450,000.
23. How much do they expend for rent, either per head or collectively, per month. Very little.
24. How much do they expend for food, per head or collectively, per month. Very little.
25. What percentage of the food are home products. None.
26. What percentage of food are imported from foreign countries. Everything from rice to opium.
27. How much do they expend for clothing per head, each year. Very little.
28. What percentage of their clothing is of American manufacture. Nothing.
30. How much of their yearly earnings are sent out of the country. 90 per cent.
31. What percentage to the amount of earnings. 90.
32. To what extent does their employment come in competition with the white industrial classes. It takes the employment from thousands of women in the laundry business, hop, and grape picking, and numerous other industries that are now monopolized by the Chinese to the detriment of the white population.

Form No. 8. Relating to Inmates of Jails and Other Reformatory Institutions.

1. How many inmates are in your county jail and other reformatory institutions in your county. Males, 60; females, 15; Chinese, 20.
2. What are their ages. Males, 18 to 60; females, 60 to 80; Chinese, 15 to 40.
3. What are their nationalities. Mixed.
4. What are their conditions and sanitary habits. Good, owing to the discipline enforced. There are no females in the county jail; those mentioned above are inmates of the county farm. All the Chinese are criminals, and are in the county jail under sentence or held for trial.
5. How many of the inmates are employed. About 10 in the jail.
6. What does their employment consist of. Working on streets.
7. To what extent does their employment come in competition with the labor of mechanics, artisans, and all other white laborers outside of reformatory institutions. It takes the bread away from the white laborer; should be abandoned, as it will force the honest laborer to become a criminal for want of employment. The Legislature should prohibit convict labor, by law.

STANISLAUS COUNTY.

Statistical Statement made by G. W. Cameron, Assessor of Stanislaus County.

Form No. 1. Relating to Agriculture.

1. How many acres of land (exclusive of town lots) does your county contain. 866,000.
2. How many acres of land (exclusive of town lots) are under cultivation. 575,000.

3. How many acres of land (exclusive of town lots) are unfit for cultivation. 291,000.
4. How many acres of land (exclusive of town lots) are timber (fuel only) land. 90,000.
5. How many acres of land (exclusive of town lots) are open for preëmption. 100,000.
6. What is the maximum price per acre (exclusive of town lots). $100.
7. What is the minimum price per acre (exclusive of town lots). $2 50.
8. What is the average price per acre. $24.
9. How many ranches are in your county. 1,245.
10. How many ranch owners. 945.
11. How many have from three to ten acres. 20.
12. How many have from ten to twenty-five acres. 33.
13. How many have from twenty-five to fifty acres. 16.
14. How many have from fifty to one hundred acres. 54.
15. How many have from one hundred to two hundred and fifty acres. 251.
16. How many have from two hundred and fifty to five hundred acres. 223.
17. How many have from five hundred to one thousand acres. 168.
18. How many have from one thousand to two thousand five hundred acres. 136.
19. How many have from two thousand five hundred to five thousand acres. 31.
20. How many have five thousand acres and over. 21.
21. How many ranches are worked by owners. 708.
24. How many ranches are rented. 236.
25. What is the maximum rent per acre. $2 50, or one third of the crop.
26. What is the minimum rent per acre. One quarter to one half of the grain.
28. How many buildings of all kinds (exclusive of city or town buildings) does your county contain. 1,245 sets of buildings.
29. What is their value. $100,000.
30. How many miles of fences are in your county. 3,000.
31. What is their cost per mile. $250.
32. What is the value of all the agricultural implements in your county. $132,275.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county. 2,150.
39. How many are under fifteen years of age. 150.
41. What are their ages. From 12 to 65.
42. What are the maximum wages paid (including board) per month. $100.
43. What are the minimum wages paid (including board) per month. $20.
44. What are the average wages paid (including board) per month. $30.
45. What industry of agriculture pays the maximum. Skilled threshers.
46. What industry of agriculture pays the minimum. Gardening.
47. How many months in the year are laborers generally employed. 6.
50. What are the minimum hours of labor per diem. 9.
51. What are the average hours of labor per diem. 11.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Always.
55. How many road laborers are in your county. 50.
56. What is the wages paid to them. $2; without board.
57. What is the laborer's condition in general. Morally, average standing; physically, good; mentally, perfectly sane.
58. How many laborers (exclusive of Chinese) are in your county unemployed. None who want to work.
60. How many of the unemployed are foreigners. One third; say 40.
61. Their nationality. All nationalities.
62. What are their ages. From 15 to 30.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county. Manufacturing establishments.
68. In what condition are the roads in your county (railroads excluded). Good.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. This is entirely a farming community, and laborers get good wages, good food, and good health; all find employment that seek it.
70. How are the sanitary conditions of the lands in your county. Generally high, dry, and healthy; miasmatic in a few places on the river.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

3. How many employés in agricultural implements in the whole county. 50. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2 50; average, $3; without board.
8. How many brewers in the whole county. 3. Hours constituting a day's work, 10. Wages paid, $2; without board.
9. How many blacksmiths in the whole county. 25. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $1 50; average, $2 75; without board.
13. How many brick-makers in the whole county. 5. Hours constituting a day's work, 10. Wages paid, $2; with board.

18. How many cabinet-makers in the whole county. 6. Hours constituting a day's work, 10. Wages paid, $2; without board.
21. How many carpenters and joiners in the whole county. 50. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
23. How many carriage and wagon makers in the whole county. 20. Hours constituting a day's work, 10. Wages paid, maximum, $4; minimum, $2; average, $3; without board.
26. How many cigar-makers in the whole county. 2. Hours constituting a day's work, 10. No journeymen.
27. How many confectioners in the whole county. 2. Hours constituting a day's work, 10. No journeymen.
32. How many employés in distilleries in the whole county. 8. Hours constituting a day's work, 10. Wages paid, $1; with board.
33. How many employés in dairies in the whole county. 12. Hours constituting a day's work, 14. Wages paid, $1.
43. How many machinists in the whole county. 4. Hours constituting a day's work, 10. Wages paid, $3; without board.
46. How many millers in the whole county. 12. Hours constituting a day's work, 11. Wages paid, $2; without board.
51. How many plumbers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, $2 50; without board.
54. How many saddlers and harness-makers in the whole county. 14. Hours constituting a day's work, 10. Wages paid, $2 50; without board.
57. How many sash, door, and blind makers in the whole county. 2. Hours constituting a day's work, 10. Wages paid, $2 50; without board.
59. How many shoe-makers in the whole county. 15. Hours constituting a day's work, 10. Wages paid, $1 50; with board.
60. How many soda works employés in the whole county. 4. Hours constituting a day's work, 10. Wages paid, $1 50; without board.
62. How many tailors in the whole county. 12. Hours constituting a day's work, 10. Wages paid, $2; without board.
64. How many tinsmiths in the whole county. 8. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2 50; average, $2 75; without board.
65. How many upholsterers in the whole county. 6. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
66. How many wheelwrights in the whole county. 4. Hours constituting a day's work, 10. Wages paid, maximum, $3; minimum, $2; average, $2 50; without board.
67. How many wine manufacturers in the whole county. 20. Hours constituting a day's work, 10. Wages paid, $1; without board.

Form No. 3. Relating to Mines and Miners (Chinese Excluded).

6. How many gold placer miners are in your county. 40. Hours constituting a day's work, 10. Number of months employed in a year, 3. Wages paid, maximum, $2 50; minimum, $1 50; average, $2; without board.
10. How many gold hydraulic miners are in your county. 4. Hours constituting a day's work, 10. Number of months employed in the year, 6. Wages paid, maximum, $3; minimum, $1 50; average, $2; without board.
27. How many sandstone quarries are in your county. 1.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

1. How many miles of steam railroads in operation are in your county. 32.
2. How many employés of all kinds on above are in your county. 24. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $5; minimum, $1 50; average, $3 50.
11. How many stage drivers in your county. 4. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $2; without board.
12. How many teamsters hauling, etc., in your county. 12. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. On account of owners.
13. How many draymen hauling, etc., in your county. 10. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $40; without board.
14. How many agents, railroad, stage, express, and steamboat, in your county. 11. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $5; minimum, $4; average, $4 50; without board.
15. How many men are engaged in express companies in your county. 8. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, commission on business.

FORM NO. 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

1. How many auctioneers are employed in your county. 3. Average number of months engaged per anuum, 12. Wages paid, on owner's account.
4. How many barbers are employed in your county. 20. Hours constituting a day's work, 12. Wages paid, $40 per month.
5. How many bookkeepers in all departments in your county. 40. Hours constituting a day's work, maximum, 12; minimum, 8; average, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $100; minimum, $50; average, $75; without board.
6. How many bricklayers in your county. 10. Hours constituting a day's work, maximum, 10; minimum, 8; average, 9. Average number of months engaged per annum, 12. Wages paid, maximum, $5; minimum, $4; average, $4 50; without board.
8. How many clerks are employed in insurance offices in your county. 9. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, maximum, $125; minimum, $40; average, $100; without board.
10. How many clerks are employed in merchandising in your county. 80. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $100; minimum, $40; average, $75.
12. How many cooks are employed in your county. 24. Males, 12; females, 12. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $50; minimum, $20; average, $40; with board.
13. How many dentists are employed in your county. 4. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, on account self.
15. How many draymen are employed in your county. 20. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, maximum, $2; minimum, $1; average, $1 50; without board.
21. How many florists and gardeners in your county. 1. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, on account of self.
22. How many fishermen in your county. 2.
24. How many journalistic editors in your county. 4.
27. How many hostlers in your county. 14. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $1 50.
31. How many milliners in your county. 6. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $2; minimum, $1; average, $1 50; without board.
32. How many painters (house) in your county. 20. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $2 50; minimum, $1 50; average, $2.
34. How many plasterers employed in your county. 6. Hours constituting a day's work, 10. Average number of months engaged per annum, 4. Wages paid, maximum, $3; minimum, $2 50.
35. How many printers are employed in your county. 12. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, maximum, $3; minimum, $1 50; average, $2; without board.
36. How many photographers are employed in your county. 3. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, on own account.
37. How many school teachers are employed in your county. 51. Males, 45; females, 16. Hours constituting a day's work, 6. Average number of months engaged per annum, 12. Wages paid, males, maximum, $125; minimum, $60; average, $75; without board. Wages paid, females, maximum, $80; minimum, $60; average, $65; without board.
39. How many servants (domestic) are employed in your county. 200. Hours constituting a day's work. 12. Average number of months engaged per annum, 8. Wages paid, maximum, $25; minimum, $10; average, $15; with board.
40. How many telegraph operators are employed in your county. 7. Males, 6; females, 1. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, males, maximum, $75; minimum, $50; average, $60; without board. Wages paid, females, $60; without board.
41. How many telegraph messenger boys are employed in your county. 1. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $20; without board.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. 40. Males, 28; females, 12. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, males, $40; with board. Wages paid, females, $20; with board.
43. How many watch-makers are employed in your county. 6. Average number of months engaged per annum, 12. Own account.
47. How many wood-cutters are employed in your county. 50. Hours consituting a day's work, 10. Average number of months engaged per annum, 4. Wages paid, maximum, $3; minimum, $2; without board.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots, telegraph lines, mines, and irrigation ditches in your county. $12,331,123.
2. What is the total value of all the buildings in the towns of your county. $738,744.
9. How are the sanitary conditions of the workshops of mechanics and manufacturers. Good.
12. What is the cost of rent of dwellings generally occupied by the wage workers. $10 per month.
13. What is the cost of rent of rooms generally occupied by the wage workers. $5 to $10 per month.
14. What is the cost of food or board per month. $5 to $10.
15. What is the cost of fuel. Wood, $6 per cord.
17. What is the cost of water for irrigation purposes. $1 50.
24. How many corporations (local) are in your county. 6.
25. Name them. Modesto Bank, $150,000, paid up; Grange Company of Modesto, $6,000, paid up; Modesto Water Company, $20,000, paid up; Odd Fellows' Hall Association, $10,500, paid up; Modesto Gas Works, $20,000, paid up; Salida Grange Company, $7,000; paid up.
27. Name cash capital invested in them. $300,000.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county. Males, 700; females, 100.
2. What are their conditions. Nearly all doing well in their way. They find employment, but not so easy as they used to. 20 per cent, perhaps, are gamblers, and 99 per cent of the women are prostitutes.
3. What are their social habits. Are bad compared to our standard.
5. How many of them are married. 5 per cent that have families here.
7. How many of them are domestic servants. Probably 300.
8. What wages are paid to domestic servants per week. $5; per month, $10 to $25; with board.
13. How many Chinese laundries are in your county. 30.
14. How many Chinese do they employ in your county. 90.
15. How many Chinese cultivate the soil in your county. 100.
16. What wages are paid them per month with board. Usually on their own account.
17. How many Chinese miners are in your county. From 75 to 100.
23. How much do they expend for rent, either per head or collectively, per month. $1,400.
24. How much do they expend for food, per head or collectively, per month. $4,800.
25. What percentage of the food are home products. 50 per cent.
26. What percentage of the food are imported from foreign countries. 50 per cent.
27. How much do they expend for clothing per head each year. Not to exceed $5.
28. What percentage of the clothing is of American manufacture. 20 per cent.
29. What percentage of the clothing is imported. 80 per cent.
30. How much of their yearly earnings are sent out of the country. $20,000.
31. What percentage to the amount of earnings. 18 per cent.
32. To what extent does their employment come in competition with the white industrial classes. Their laundries cut off work from 80 white women. Their employment as cooks and domestic servants cuts off work from say 300 white women who would come into the county if these competitors did not exist.

Form No. 8. Relating to Inmates of Jails and Other Reformatory Institutions.

1. How many inmates are in your county jail and other reformatory institutions in your county. 17.
2. What are their ages. Males, 13 to 45.
3. What are their nationalities. 60 per cent American, 20 per cent Spanish, and 20 per cent Portuguese.
4. What are their conditions and sanitary habits. Bad.
5. How many of the inmates are employed. 5.
6. What does their employment consist of. Work on the public works.
7. To what extent does their employment come in competition with the labor of mechanics, artisans, and all other white laborers outside of reformatory institutions. Not at all.

SUTTER COUNTY.

Statistical Statement made by W. F. Peck, Assessor of Sutter County.

Form No. 1. Relating to Agriculture.

1. How many acres of land (exclusive of town lots) does your county contain. 376,000.
2. How many acres of land (exclusive of town lots) are under cultivation. 200.000.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 96,000.
6. What is the maximum price per acre (exclusive of town lots). $150.

7. What is the minimum price per acre (exclusive of town lots). 25 cents.
8. What is the average price per acre (exclusive of town lots). $25.
25. What is the maximum rent per acre. $7.
26. What is the minimum rent per acre. $4.
27. What is the average rent per acre. $5.

Relating to Farm Hands and Road Laborers.

51. What are the average hours of labor per diem. 10.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Not often.
57. What is the laborer's condition in general. Morally, good; physically, good; mentally, good.
65. What are the causes of their idleness. Nothing to do.
68. In what condition are the roads in your county (railroads excluded). Fair.
70. How are the sanitary conditions of the lands in your county. Fair.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

9. How many blacksmiths in the whole county. 28.
13. How many brick-makers in the whole county. 5.
17. How many box (wood, packing) makers in the whole county. 2.
20. How many canneries (fish, fruit, etc.) employés in the whole county. 70.
21. How many carpenters and joiners in the whole county. 30.
23. How many carriage and wagon makers in the whole county. 7.
29. How many coopers in the whole county. 1.
43. How many machinists in the whole county. 1.
46. How many millers in the whole county. 3.
59. How many shoe-makers in the whole county. 5.
64. How many tinsmiths in the whole county. 1.
66. How many wheelwrights in the whole county. 3.
67. How many wine manufacturers in the whole county. 2.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

1. How many miles of steam railroads in operation in your county. 10.
11. How many stage drivers in your county. 1.
12. How many teamsters hauling, etc., in your county. 3.
13. How many draymen hauling, etc., in your county. 1.
14. How many agents, railroad, stage, express, and steamboat, in your county. 1.

Form No. 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

4. How many barbers are employed in your county. 3.
5. How many bookkeepers in all departments in your county. 6.
6. How many bricklayers in your county. 3.
7. How many clerks are employed in banking institutions in your county. 2.
8. How many clerks are employed in insurance offices in your county. 7.
10. How many clerks employed in general merchandising in your county. 10.
11. How many clerks are employed in county and town governments in your county. 4.
14. How many draughtsmen are employed in your county. 1.
15. How many draymen are employed in your county. 1.
16. How many dress and cloak makers in your county. 4.
18. How many engineers (civil) in your county. 3.
22. How many fisherman in your county. 1.
25. How many journalistic reporters in your county. 1.
26. How many hod carriers in your county. 3.
27. How many hostlers in your county. 7.
32. How many painters (house) in your county. 3.
34. How many plasterers are employed in your county. 1.
35. How many printers are employed in your county. 5.
37. How many school teachers are employed in your county. 38.
40. How many telegraph operators are employed in your county. 2.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. 4.
47. How many wood-cutters are employed in your county. 40.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county. $5,936,000.
2. What is the total value of all the buildings in the towns of your county. $97,840.
3. What is the total value of all the machineries used for mechanical and manufacturing purposes. $5,000.
24. How many corporations (local) are in your county. 9.

25. Name them. Farmers' Union of Yuba City, Farmers' Union of Live Oak, Farmers' Union of Somo Station, Sutter County Cannery, People's Warehouse of Nicolaus, Nicolaus Warehouse, Live Oak Hall, North Butte Hall, Sutter Publishing Company.
26. Name capital stock of each. Farmers' Union of Yuba City, $50,000; Farmers' Union of Live Oak, $5,000; Farmers' Union of Somo Station, $5,000; Sutter County Cannery, $50,000; People's Warehouse of Nicolaus, $5,000; Nicolaus Warehouse, $5,000; Live Oak Hall, $1,000; North Butte Hall, $2,000; Sutter Publishing Company, $5,000.
28. Total amount of hands employed in each. At present, 2; in summer, 5 to 15.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese are in your county. Males, 500; females, 2.
2. What are their conditions. Average.
3. What are their social habits. Chinese.
4. What are their sanitary habits. Fair.
5. How many of them are married. 2.
6. How many of them are employed. All, or nearly.
7. How many of them are domestic servants. 50.
8. What wages are paid to domestic servants per week. $5; per month, $20; with board.
9. How many of them are cooks. 50.
10. What wages are paid them per week. $5; per month, $20; with board.
11. How many are laundrymen. 30.
13. How many Chinese laundries are in your county. 8.
14. How many Chinese do they employ in your county. 30.
15. How many Chinese cultivate the soil in your county. 300.
19. How many of them are employed in manufactures of all kinds. 4.
20. Name the various industries and number employed in each of them. Making cans, 4.
21. What are the wages paid them in each of the industries employed. Work by the piece.
32. To what extent does their employment come in competition with the white industrial classes. An unlimited extent.

Form No. 8. Relating to Inmates of Jails and Other Reformatory Institutions.

1. How many inmates are in your county jail and other reformatory institutions in your county. Males, 1.
2. What are their ages. 54.
4. What are their conditions and sanitary habits. Fair.
7. To what extent does their employment come in competition with the labor of mechanics, artisans, and all other white laborers outside of reformatory institutions. Not at all.

TEHAMA COUNTY.

Statistical Statement made by Jackson Eby, Assessor of Tehama County.

Form No. 1. Relating to Agriculture.

1. How many acres of land (exclusive of town lots) does your county contain. About 2,000,000.
2. How many acres of land (exclusive of town lots) are under cultivation. About 301,000.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. About 1,699,000.
4. How many acres of land (exclusive of town lots) are timber land. Three fourths contain timber.
5. How many acres of land (exclusive of town lots) are open for preëmption. About 500,000.
6. What is the maximum price per acre (exclusive of town lots). For deeded land, about $75 per acre.
7. What is the minimum price per acre (exclusive of town lots). About 50 cents.
8. What is the average price per acre (exclusive of town lots). About $5.
13. How many have from twenty-five to fifty acres. 20.
14. How many have from fifty to one hundred acres. 45.
15. How many have from one hundred to two hundred and fifty acres. 200.
16. How many have from two hundred and fifty to five hundred acres. 300.
17. How many have from five hundred to one thousand acres. 350.
18. How many have from one thousand to two thousand five hundred acres. 100.
19. How many have from two thousand five hundred to five thousand acres. 100.
20. How many have five thousand acres and over. 50.
21. How many ranches are worked by owners. Nearly all.
22. How many ranches are worked in shares between owner and renter. Very few.
24. How many ranches are rented. Very few.
27. What is the average rent per acre. Some third, some fourth of crop.
32. What is the value of all the agricultural implements in your county. $25,000.

Relating to Farm Hands and Road Laborers.

42. What are the maximum wages paid (including board). From $2 to $3 per day.
43. What are the minimum wages paid (including board). About $30 per month.
44. What are the average wages paid (including board). About $26 per month.
45. What industry of agriculture pays the maximum. Harvest.
46. What industry of agriculture pays the minimum. Winter seeding.
47. How many months are laborers generally employed. All the year.
49. What are the maximum hours of labor per diem. From 10 to 15.
50. What are the minimum hours of labor per diem. About 10.
51. What are the average hours of labor per diem. About 12.
52. Are those working over the regular hours constituting a day's work paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from their wages. Yes.
57. What is the laborer's condition generally. Morally, generally dissipated; physically, good; mentally, on an average with the world.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county. Plenty of work for all.
68. In what condition are the roads in your county (railroads excluded). Very good.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. Let them work to the interest of their employers.
70. How are the sanitary conditions of the lands in your county. Very good.

FORM NO. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

2. How many awning-makers are employed in the whole county. 2. Hours constituting a day's work, 12. Wages paid, maximum, $4; minimum, $3; with board.
7. How many bakers in the whole county. 4. Hours constituting a day's work, 15. Wages paid, $2 50; with board.
8. How many brewers in the whole county. 7. Hours constituting a day's work, 15. Wages paid, $2 50; with board.
13. How many brick-makers in the whole county. 30. Hours constituting a day's work, 12. Wages paid, $3; with board.
14. How many broom-makers in the whole county. 2. Hours constituting a day's work, 10. Wages paid, $2 50; with board.
18. How many cabinet-makers in the whole county. 5. Hours constituting a day's work, 12. Wages paid, $2 50; with board.
23. How many carriage and wagon makers in the whole county. 8. Hours constituting a day's work, 12. Wages paid, $3; with board.
25. How many cement-makers in the whole county. 3. Hours constituting a day's work, 5. Wages paid, $1 50; with board.
27. How many confectioners in the whole county. 1. Hours constituting a day's work, 12. Wages paid, $3; with board.
33. How many employés in dairies in the whole county. 4. Hours constituting a day's work, 15. Wages paid, $1; with board.
37 How many gunsmiths in the whole county. 2. Hours constituting a day's work, 10. Wages paid, $3; with board.
44. How many marble-cutters in the whole county. 10. Hours constituting a day's work, 12. Wages paid, $3; with board.
46. How many millers in the whole county. 4. Hours constituting a day's work, 12. Wages paid, $3; with board.
54. How many saddlers and harness-makers in the whole county. 10. Hours constituting a day's work, 12. Wages paid, $1 50; with board.
57. How many sash, door, and blind makers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, $3; with board.
59. How many shoe-makers in the whole county. 10. Hours constituting a day's work, 12. Wages paid, $1 50; with board.
60. How many soda works employés in the whole county. 2. Hours constituting a day's work, 8. Wages paid, $1 50; with board.
61. How many stone-cutters in the whole county. 6. Hours constituting a day's work, 10. Wages paid, $3.
62. How many tailors in the whole county. 12. Hours constituting a day's work, 15. Wages paid, $2; with board.
63. How many tanners in the whole county. 2. Hours constituting a day's work, 10. Wages paid, $2; with board.
64. How many tinsmiths in the whole county. 10. Hours constituting a day's work, 12. Wages paid, $2 50; with board.
65. How many upholsterers in the whole county. 4. Hours constituting a day's work, 15. Wages paid, $3; with board.
66. How many wheelwrights in the whole county. 1. Hours constituting a day's work, 10. Wages paid, $3; with board.
67. How many wine manufacturers in the whole county. 4. Hours constituting a day's work, 10. Wages paid, $2 50; with board.

FORM NO. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

1. How many miles of steam railroads in operation are in your county. 40.54.
11. How many stage drivers in your county. 4. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid, $2.
14. How many agents, railroad, stage, express, and steamboat, in your county. 6. Average hours per day, 12. Average number of months engaged per annum, 12. Wages paid, $3.

FORM NO. 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

1. How many auctioneers are employed in your county. 2. Hours constituting a day's work, 10. Average number of months engaged per annum, 1. Wages paid, $3; with board.
4. How many barbers are employed in your county. 7. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $2; without board.
5. How many bookkeepers in all departments in your county. 40. Hours constituting a day's work, 15. Average number of months engaged per annum, 12. Wages paid, $4; without board.
6. How many bricklayers in your county. 6. Hours constituting a day's work, 10. Average number of months engaged per annum, 4. Wages paid, $3; without board.
7. How many clerks are employed in banking institutions in your county. 3. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, $4; without board.
11. How many clerks are employed in county and town governments in your county, 10. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $3; without board.
13. How many dentists are employed in your county. 4. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $3; without board.
15. How many draymen are employed in your county. 4. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $3; without board.
16. How many dress and cloak makers in your county. 8. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $1 25; without board.
17. How many engravers in your county. 4. Hours constituting a day's work, 15. Average number of months engaged per annum, 12. Wages paid, $3; without board.
18. How many engineers (civil) in your county. 2. Hours constituting a day's work, 6. Average number of months engaged per annum, 1. Wages paid, $25; without board.
19. How many engineers (stationary engines) in your county. 40. Hours constituting a day's work, 12. Average number of months engaged per annum, 4. Wages paid, $4; with board.
23. How many glaziers in your county. 15. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid, $3; with board.
25. How many journalistic reporters in your county. 4. Hours constituting a day's work, 15. Average number of months engaged per annum, 12. Wages paid, $3; without board.
27. How many hostlers in your county. 8. Hours constituting a day's work, 15. Average number of months engaged per annum, 12. Wages paid, $2 50; without board.
30. How many lumbermen in your county. 300. Hours constituting a day's work, 10. Average number of months engaged per annum, 6. Wages paid, $150; with board.
31. How many milliners in your county. 4. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $1 25; without board.
32. How many painters (house) in your county. 12. Hours constituting a day's work, 10. Average number of months engaged per annum, 8. Wages paid, $2; without board.
34. How many plasterers are employed in your county. 6. Hours constituting a day's work, 10. Average number of months engaged per annum, 5. Wages paid, $3; without board.
35. How many printers are employed in your county. 15. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $2; without board.
36. How many photographers are employed in your county. 2. Hours constituting a day's work, 10. Average number of months engaged per annum, 12. Wages paid, $5; without board.
37. How many school teachers are employed in your county. 60. Hours constituting a day's work, 6. Average number of months engaged per annum, 9. Wages paid, $3; without board.
41. How many telegraph messenger boys are employed in your county. 1. Hours constituting a day's work, 15. Average number of months engaged per annum, 12. Wages paid, $1; without board.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. 24.

43. How many watch-makers are employed in your county. 3. Hours constituting a day's work, 15. Average number of months engaged per annum, 12. Wages paid, $5; without board.
44. How many well-borers (artesian) are employed in your county. 1 set. Average number of months engaged per annum, 1. Wages paid, $5; without board.

FORM No. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county. About $5,200,000.
2. What is the total value of all the buildings in the towns of your county. $595,000.
3. What is the total value of all machineries used for mechanical and manufacturing purposes. About $240,000.
12. What is the cost of rent of dwellings generally occupied by the wage workers. From $5 to $10.
13. What is the cost of rent of rooms generally occupied by the wage workers. From $3 to $5.
14. What is the cost of food or board per month. From $16 to $20.
16. What is the cost of water for household purposes, per month. $1 50 to $2.
17. What is the cost of water for irrigation purposes. About $3.

FORM No. 7. RELATING TO CHINESE (EXCLUSIVELY).

13. How many Chinese laundries are in your county. 4.
15. How many Chinese cultivate the soil in your county. 40.

TRINITY COUNTY.

Statistical Statement made by the Assessor of Trinity County.

FORM No. 1. RELATING TO AGRICULTURE.

2. How many acres of land (exclusive of town lots) are under cultivation. 4,100.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. Six eighths of the county.
6. What is the maximum price per acre (exclusive of town lots). $5 50.
7. What is the minimum price per acre (exclusive of town lots). $2 10.
8. What is the average price per acre (exclusive of town lots). $3 80.
9. How many ranches are in your county. 264.
10. How many ranch owners. 218.
11. How many have from three to ten acres. 102.
12. How many have from ten to twenty-five acres. 44.
13. How many have from twenty-five to fifty acres. 30.
14. How many have from fifty to one hundred acres. 20.
15. How many have from one hundred to two hundred and fifty acres. 4.
16. How many have from two hundred and fifty to five hundred acres. 10.
17. How many have from five hundred to one thousand acres. 3.
18. How many have from one thousand to two thousand five hundred acres. 3.
19. How many have from two thousand five hundred to five thousand acres. 2.
21. How many ranches are worked by owners. 180.
24. How many ranches are rented. 38.
32. What is the value of all the agricultural implements in your county. $5,260.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county. About 300.
38. What are their ages. From 16 to 60.
42. What are the maximum wages paid (including board) per month. $40.
43. What are the minimum wages paid (including board) per month. $20.
44. What are the average wages paid (including board) per month. $30.
47. How many months in the year are laborers generally employed. 9.
48. When unemployed in agriculture what industry do they pursue to gain a livelihood. Mining, trapping, and hunting.
49. What are the maximum hours of labor per diem. 10.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Not generally.
55. How many road laborers are in your county. 18.
56. What is the wages paid to them. $50.
57. What is the laborer's condition in general. Morally, good; physically, good; mentally, good.
58. How many laborers (exclusive of Chinese) are in your county unemployed. About 75.
61. Their nationality. Cannot tell.
62. What are their ages. From 18 to 60.

66. What steps can be taken, or what is necessary, to obtain employment for all in your county. Erect manufactories.
68. In what condition are the roads in your county. Very good.
70. How are the sanitary conditions of the lands in your county. Very good.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

8. How many brewers in the whole county. 6. Hours constituting a day's work, 10. Wages paid, $50; with board.
9. How many blacksmiths in the whole county. 23. Hours constituting a day's work, 10. Wages paid, $60; with board.
16. How many cabinet-makers in the whole county. 3. Hours constituting a day's work, 10. Wages paid, $75; with board.
21. How many carpenters and joiners in the whole county. 25. Hours constituting a day's work, 10. Wages paid, $65; with board.
23. How many carriage and wagon makers in the whole county. 2. Hours constituting a day's work, 10. Wages paid, $80; with board.
33. How many employés in dairies in the whole county. 50. Hours constituting a day's work, 10. Wages paid, males, $50. Wages paid, females, $20; with board.
37. How many gunsmiths in the whole county. 2. Hours constituting a day's work, 10. Wages paid, $75; with board.
42. How many employés in limekilns in the whole county. 6. Hours constituting a day's work, 10. Wages paid, $60; with board.
43. How many machinists in the whole county. 21.
46. How many millers in the whole county. 4. Hours constituting a day's work, 10. Wages paid, $60; with board.
58. How many shingle-makers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, $60; with board.
59. How many shoe-makers in the whole county. 10. Hours constituting a day's work, 10. Wages paid, $60.
62. How many tailors in the whole county. 1. Hours constituting a day's work, 10.
64. How many tinsmiths in the whole county. 2. Hours constituting a day's work. 10. Wages paid, $75; with board.
65. How many upholsterers in the whole county. 1. Hours constituting a day's work, 10. Wages paid, $75; with board.

Form No. 3. Relating to Mines and Miners (Chinese Excluded).

3. How many coal mines are in your county. 1.
4. How many coal miners are in your county. 175. Hours constituting a day's work, 10.
5. How many gold placer mines are in your county. 50.
6. How many gold placer miners are in your county. 350.
7. How many gold quartz mines are in your county. 75.
8. How many gold quartz miners are in your county. 250.
9. How many gold hydraulic mines are in your county. 200.
19. How many quicksilver mines are in your county. 3.

Form No. 4. Relating to Transportation on Land and Water (Chinese Excluded).

11. How many stage drivers in your county. Miles of roads, 240. Number of men, 4. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid, $60; with board.
12. How many teamsters hauling, etc., in your county. 18. Average hours per day, 10. Average number of months engaged per annum, 8. Wages paid, $60; with board.
14. How many agents, stage and express, in your county. 4. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid, $75; with board.
15. How many men are engaged in express companies in your county. 2. Average hours per day, 10. Average number of months engaged per annum, 12. Wages paid, $75; with board.

Form No. 5. Relating to Clerical and all Other Skilled and Unskilled Labor not Before Enumerated (Chinese Excluded).

3. How many assayers and chemists are employed in your county. 1.
4. How many barbers are employed in your county. 4.
10. How many clerks employed in general merchandising in your county. 20. Hours constituting a day's work, 12. Average number of months engaged per annum, 12. Wages paid $30 to $75.
11. How many clerks are employed in county and town governments in your county. 1. Hours constituting a day's work, 8. Average number of months engaged per annum, 12. Wages paid, $1,800 per year.
12. How many cooks are employed in your county. 6. Hours constituting a day's work, 10. Wages paid, $40; with board.
13. How many dentists are employed in your town. 1.
16. How many dress and cloak makers in your town. 5.

19. How many engineers (stationary engines) in your county. 2. Hours constituting a day's work, 10. Average number of months engaged per annum, 8. Wages paid, $65; with board.
24. How many journalistic editors in your county. 1.
27. How many hostlers in your county. 6. Hours constituting a day's work, 10. Average number of months engaged per annum, 10. Wages paid, $40; with board.
28. How many laundrymen in your county. 6. Chinese only.
30. How many lumbermen in your county. 18. Hours constituting a day's work, 10. Average number of months engaged per annum, 9. Wages paid, $50; with board.
31. How many milliners in your county. 1.
32. How many painters (house) in your county. 2. No regular employment.
34. How many plasterers are employed in your county. 1. No regular employment.
35. How many printers are employed in your county. 3. Males, 2; females, 1. Wages paid, males, $50; females, $40; with board.
37. How many school teachers are employed in your county. 16. Males, 6; females, 10. Average number of months engaged per annum, 8. Wages paid, males, $95; females, $60; without board.
39. How many servants (domestic) are employed in your county. 10. Hours constituting a day's work, 10. Wages paid, females, $35; with board.
40. How many telegraph operators are employed in your county. 1.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. 16. Males, 12; females, 4. Hours constituting a day's work, 10. Wages paid, males, $50; females, $25; with board.
47. How many wood-cutters are employed in your county. 12. Hours constituting a day's work, 10. Aggregate number of months engaged per annum, 8. Wages paid, $60; with board.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county. $180,647.
2. What is the total value of all the buildings in the towns of your county. $73,562.
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county. Nothing.
6. Are any trades unions in your county. No.
12. What is the cost of rent of dwellings generally. $5 to $10 per month.
14. What is the cost of food or board per month. $13 to $15.
15. What is the cost of fuel. Wood, $5 to $8.
16. What is the cost of water for household purposes per month. $3.
17. What is the cost of water for irrigation purposes. $4.
24. How many corporations (local) are in your county. 15.
25. Name them. Bully Chorp Quartz, Mary Bloom Quartz, Mountain Brown Quartz, Brown Bear Quartz, Brunswick Quartz, Lone Jack Quartz, Hard Tack Quartz, Lennie Quartz, Trinity Gold Mining Company (Hydraulic), Buckeye Mining Company (Hydraulic), Nash Deep Gravel Mining Company (Hydraulic), Mason's Bar Mining Company (Hydraulic), Altoona Quicksilver Mining Company.

Form No. 7. Relating to Chinese (Exclusively).

1. How many Chinese in your county. Males, about 400; females, 50.
3. What are their social habits. Industrious and law-abiding.
4. What are their sanitary habits. No good.
5. How many of them are married. 5.
6. How many of them are employed. Nearly all in merchandising and mining.
7. How many of them are domestic servants. 18.
8. What wages are paid to domestic servants per week. $7; per month, $20; with board.
9. How many of them are cooks. Don't know.
10. What wages are paid to them per week. $8; per month, $20 to $30; with board.
11. How many are laundrymen. 14.
12. What wages do they earn per month. $30 to $60; with board.
15. How many Chinese cultivate the soil in your county. About 40.
16. What wages are paid them per month with board. $20 to $30.
17. How many Chinese miners are in your county. About 300.
18. What wages do they earn. From $10 upward.
24. How much do they expend for food, per head or collectively, per month. About $10.
25. What percentage of the food are home products. One third.
26. What percentage of the food are imported from foreign countries. Two thirds.
29. What percentage of the clothing is imported. Nearly all.
30. How much of their yearly earnings are sent out of the country. Nearly all.

VENTURA COUNTY.

Statistical Statement made by J. A. Conaway, Assessor of Ventura County.

Form No. 1. Relating to Agriculture.

5. How many acres of land (exclusive of town lots) are open for preëmption. All the mountains not surveyed.
6. What is the maximum price per acre (exclusive of town lots). $100.
7. What is the minimum price per acre (exclusive of town lots). $1 25.
9. How many ranches are in your county. About 500.
10. How many ranch owners. 577.
11. How many have from three to ten acres. 50.
12. How many have from ten to twenty-five acres. 50.
13. How many have from twenty-five to fifty acres. 100.
14. How many have from fifty to one hundred acres. 100.
15. How many have from one hundred to two hundred and fifty acres. 200.
16. How many have from two hundred and fifty to five hundred acres. 50.
17. How mana have from five hundred to one thousand acres. 12.
18. How many have from one thousand to two thousand five hundred acres. 8.
19. How many have from two thousand five hundred to five thousand acres. 3.
20. How many have five thousand acres and over. 4.
25. What is the maximum rent per acre. $7.
26. What is the minimum rent per acre. $2.
27. What is the average rent per acre. $4 50.
30. How many miles of fences are in your county. 300.
31. What is their cost per mile. $80.
32. What is the value of all the agricultural implements in your county. $15,000.
33. How many labor-saving agricultural implements are in your county. 15.
35. What is their combined horse (or man) power. Horse and steam.

Relating to Farm Hands and Road Laborers.

37. How many laborers (Chinese excluded) are employed in agriculture in your county. 250.
38. What are their ages. From 15 to 60.
42. What are the maximum wages paid (including board) per month. $30.
43. What are the minimum wages paid (including board) per month. $20.
44. What are the average wages paid (including board) per month. $25.
45. What industry of agriculture pays the maximum. Beans and flax; sometimes wheat.
46. What industry of agriculture pays the minimum. Sometimes one, sometines another.
47. How many months in the year are laborers generally employed. All the time.
48. When unemployed in agriculture what industry do they pursue to gain a livelihood. Live on what they earned while at work; but there is, and always has been, a great mystery to me how some people live, and always will be, I presume.
50. What are the minimum hours of labor per diem. 8.
51. What are the average hours of labor per diem. 10.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county. Get more work than hands.
67. How do they obtain sustenance and clothing. Credit, and never pay.
68. In what condition are the roads in your county (railroads excluded). Good.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. None but to work all the time that they can, and they will be happier than if they loaf, and will have plenty.
70. How are the sanitary conditions of the lands in your county. Good as can be. Health is good all the time.

Form No. 2. Relating to Employés in Mechanical and Manufacturing Industries (Chinese Excluded).

1. How many asphaltum workers are employed in the whole county. 50. Hours constituting a day's work, maximum, 14; minimum, 7; average, 10½. Wages paid, males, $10 50. Wages paid, females, maximum, $25; minimum, $10.
9. How many blacksmiths in the whole county. 10.
20. How many canneries (fish, fruit, etc.) employés in the whole county. 1.
21. How many carpenters and joiners in the whole county. 15.
23. How many carriage and wagon makers in the whole county. 3.
59. How many shoe-makers in the whole county. 10.
60. How many soda works employés in the whole county. 1.
62. How many tailors in the whole county. 2.
64. How many tinsmiths in the whole county. 20.
65. How many upholsterers in the whole county. 4.
67. How many wine manufacturers in the whole county. 5.

FORM No. 3. RELATING TO MINES AND MINERS (CHINESE EXCLUDED).

1. How many asphaltum mines are in your county that are worked. 25. Number of miners, 40. Hours constituting a day's work, maximum, 10; minimum, 8. Number of months employed in the year, 6. Wages per day, maximum, $4; minimum, $2; without board.

FORM No. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED).

12. How many teamsters hauling, etc., in your county. 25.
13. How nany draymen hauling, etc., in your county. 2.
14. How many agents, railroad, stage, express, and steamboat, in your county. 2.
15. How many men are engaged in express companies in your county. 5.
16. How many steamboats and sailing vessels of all kinds in your county. That land here, 5.

FORM No. 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

4. How many barbers are employed in your county. 5.
5. How many bookkeepers, in all departments, in your county. 25.
6. How many bricklayers in your county. 10.
8. How many clerks are employed in insurance offices in your county. 50.
10. How many clerks employed in general merchandising in your county. 30.
11. How many clerks are employed in county and town governments in your county. 9.
12. How many cooks are employed in your county. 100.
13. How many dentists are employed in your county. 2.
14. How many draughtsmen are employed in your county. 1.
15. How many draymen are employed in your county. 2.
18. How many engineers (civil) in your county. 2.
19. How many engineers (stationary engines) in your county. 2.
20. How many engineers (mining) in your county. 2.
21. How many florists and gardeners in your county. 1.
22. How many fishermen in your county. 4.
24. How many journalistic editors in your county. 3.
25. How many journalistic reporters in your county. 3.
27. How many hostlers in your county. 12.
28. How many laundrymen in your county. 12.
30. How many lumbermen in your county. 2.
31. How many milliners in your county. 2.
32. How many painters (house) in your county. 4.
33. How many fresco painters are employed in your county. 15.
34. How many plasterers are employed in your county. 10.
35. How many printers are employed in your county. 10.
36. How many photographers are employed in your county. 3.
37. How many school teachers are employed in your county. 36.
38. How many seamstresses are employed in your county. 12.
39. How many servants (domestic) are employed in your county. 300.
40. How many telegraph operators are employed in your county. 4.
41. How many telegraph messenger boys are employed in your county. 1.
42. How many waiters (restaurant, hotel, etc.) are employed in your county. 20.
43. How many watch-makers are employed in your county. 2.
44. How many well-borers (artesian) are employed in your county. 2.

FORM No. 6. MISCELLANEOUS.

1. What is the total value of all lands and town lots in your county. $3,469,450.
2. What is the total value of all the buildings in the towns of your county. $151,362.
3. What is the total value of all the machineries used for mechanical and manufacturing purposes. $10,000.
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county. There is no apprentice system in Ventura County.
6. Are any trade unions in your county. None.
9. How are the sanitary conditions of the workshops of mechanics and manufacturers. Good.
10. How are the sanitary conditions of the dwellings of the wage workers. Good.
11. What percentage of dwellings are owned by them. Three fourths.
12. What is the cost of rent of dwellings generally occupied by the wage workers. $4 to $6.
14. What is the cost of food or board per month. $16. (When a man cooks it himself, $10.)
15. What is the cost of fuel. Wood, $6 per cord.
17. What is the cost of water for irrigation purposes. A good head for $10 per day.
18. How many poor people live in your county. Males, 7; females, 3.
19. Their ages. All ages.
20. The cause. Blind, decrepit, old age, and poor generally.

22. What are their conditions. Sanitary, good; morally, good.
23. What suggestions can you make to ameliorate their condition. None but to feed and clothe them as long as they live.

FORM NO. 7. RELATING TO CHINESE (EXCLUSIVELY).

1. How many Chinese are in your county. Males, 150; females, 10.
2. What are their conditions. Much the same as elsewhere in regard to living. Some few rent land, but the most of them are in towns. Some two or three small camps are located in the county. Their wages are from $1 to $1 25 per day and board themselves.
3. What are their social habits. Same as other places; that is, bad.
23. How much do they expend for rent, either per head or collectively, per month. $1.500.
24. How much do they expend for food, per head or collectively, per month. $1,000. All in county.
25. What percentage of the food are home products. One fifth.
26. What percentage of the food are imported from foreign countries. Four fifths.
27. How much do they expend for clothing per head each year. I have no idea what.
28. What percentage of the clothing is of American manufacture. One fourth.
32. To what extent does their employment come in competition with the white industrial classes. Very materially, as all the haying, weeding of crops, and a good part of harvesting, and nearly all the threshing is done by Chinese crews.

FORM NO. 8. RELATING TO INMATES OF JAILS AND OTHER REFORMATORY INSTITUTIONS.

1. How many inmates are in your county jail and other reformatory institutions in your county. Males, 4; Chinese, 2.
2. What are their ages. 15 to 60.
4. What are their conditions and sanitary habits. It would be bad for me. It appears to agree with them.
7. To what extent does their employment come in competition with the labor of mechanics, artisans, and all other white laborers outside of reformatory institutions. It does not interfere in the least.

YOLO COUNTY.

Statistical Statement made by the Assessor of Yolo County.

FORM NO. 1. RELATING TO AGRICULTURE.

1. How many acres of land (exclusive of town lots) does your county contain. 600,000.
2. How many acres of land (exclusive of town lots) are under cultivation. 300,000.
3. How many acres of land (exclusive of town lots) are unfit for cultivation. 100,000.
6. What is the maximum price per acre (exclusive of town lots). About $200.
7. What is the minimum price per acre (exclusive of town lots). $1 75.
8. What is the average price per acre (exclusive of town lots). $16.
9. How many ranches are in your county. About 2,000.
10. How many ranch owners. About 1,500.
11. How many have from three to ten acres. About 150.
12. How many have from ten to twenty-five acres. About 200.
13. How many have from twenty-five to fifty acres. About 275.
14. How many have from fifty to one hundred acres. About 350.
15. How many have from one hundred to two hundred and fifty acres. 360.
16. How many have from two hundred and fifty to five hundred acres. 850.
17. How many have from five hundred to one thousand acres. 275.
18. How many have from one thousand to two thousand five hundred acres. 200.
19. How many have from two thousand five hundred to five thousand acres. 10.
20. How many have five thousand acres and over. 6.
25. What is the maximum rent per acre. $10.
26. What is the minimum rent per acre. 25 cents; sheep land.
27. What is the average rent per acre. About $5.
32. What is the value of all the agricultural implements in your county. $120,000.
36. What percentage of ranch cultivators in your county use labor-saving machines. All.

Relating to Farm Hands and Road Laborers.

42. What are the maximum wages paid (including board) per month. About $40.
44. What are the average wages paid (including board) per month. About $20.
47. How many months in the year are laborers generally employed. About 5 and 6.
50. What are the maximum hours of labor per diem. 8.
51. What are the average hours of labor per diem. On ranches about 12.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county. Manufactories.

69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. Several things might be suggested, chief among which would be to abstain from alcoholic beverages—to be sober and industrious.

Form No. 6. Miscellaneous.

1. What is the total value of all lands and town lots in your county. $12,100,000.
2. What is the total value of all the buildings in the towns of your county. Not segregated.
3. What is the total value of all the machineries used for mechanical and manufacturing purposes. $85,000.
5. To what extent does the apprenticeship system prevail in the various skilled industries in your county. Have not such a system in operation.
15. What is the cost of fuel. Wood, $5 per cord.

Form No. 7. Relating to Chinese (Exclusively).

4. What are their sanitary habits. Not above the average on the Pacific Coast.
8. What wages are paid to domestic servants. From $10 to $20 per month; with board.

Form No. 8. Relating to Inmates of Jails and Other Reformatory Institutions.

1. How many inmates are in your county jail and other reformatory institutions in your county. Males, about 14.
3. What are their nationalities. Heaviest percentage is of Irish nationality.
4. What are their conditions and sanitary habits. Sanitary conditions of county jail and hospital, good.
5. How many of the inmates are employed. About 80 per cent.
6. What does their employment consist of. Laboring on the public grounds and highways.
7. To what extent does their employment come in competition with the labor of mechanics, artisans, and all other white laborers outside of reformatory institutions. Not at all.

YUBA COUNTY.

Statistical Statement made by Lewis Wilder, Assessor of Yuba County.

Form No. 1. Relating to Agriculture.

1. How many acres of land (exclusive of town lots) does your county contain. 385,500.
2. How many acres of land (exclusive of town lots) are under cultivation. 189,220.
4. How many acres of land (exclusive of town lots) are timber land. 100,000
5. How many acres of land (exclusive of town lots) are open for preëmption. 28,800.
12. How many have from ten to twenty-five acres. 20.
13. How many have from twenty-five to fifty acres. 10.
14. How many have from fifty to one hundred acres. 20.
15. How many have from one hundred to two hundred and fifty acres. 760.
16. How many have from two hundred and fifty to five hundred acres. 60.
17. How many have from five hundred to one thousand acres. 74.
18. How many have from one thousand to two thousand five hundred acres. 35.
19. How many have from two thousand five hundred to five thousand acres. 6.
20. How many have five thousand acres and over. 3.
24. How many ranches are rented. 16.
32. What is the value of all the agricultural implements in your county. $26,855.
52. Are those working over the regular hours constituting a day's work, paid extra. No.
54. If from sickness laborers must abstain from work, are any deductions made from his wages. Yes; and if the weather prevents work the wages are reduced in accordance with the enforced idleness.
65. What are the causes of their idleness. The Chinamen work for small wages, and the employers, as a general rule, want to bring the laborer down to the Chinese standard of wages; if they work for Chinese wages they are preferred.
66. What steps can be taken, or what is necessary, to obtain employment for all in your county. Send the Chinese out of the country.
67. How do they obtain sustenance and clothing. From their labor of about one third of the year.
68. In what condition are the roads in your county (railroads excluded). Good in summer; bad in winter.
69. Can you suggest anything that will ameliorate the condition of the laborers and accrue to their benefit. Boycott the employers and patrons of the Chinese element.
70. How are the sanitary conditions of the lands in your county. Mountains, healthy; valley, malarious; drainage required in valley.

FORM NO. 2. RELATING TO EMPLOYÉS IN MECHANICAL AND MANUFACTURING INDUSTRIES (CHINESE EXCLUDED).

7. How many bakers in the whole county. 4.
8. How many brewers in the whole county. 3.
9. How many blacksmiths in the whole county. 50. Wages paid, $2 50.
10. How many boiler-makers in the whole county. 2. Wages paid, $3 50.
14. How many broom-makers in the whole county. 2. Wages paid, $2 50.
18. How many cabinet-makers in the whole county. 2. Wages paid, $3.
21. How many carpenters and joiners in the whole county. 100. Wages paid, maximum, $4; average, $2.
23. How many carriage and wagon makers in the whole county. 2.
26. How many cigar-makers in the whole county. 1.
27. How many confectioners in the whole county. 4.
32. How many employés in distilleries in the whole county. 6.
33. How many employés in dairies in the whole county. 7. Wages paid, maximum, $1 50; minimum, $1.
37. How many gunsmiths in the whole county. 5. Wages paid, $2 50.
41. How many locksmiths in the whole county. 1.
44. How many marble-cutters in the whole county. 6.
46. How many millers in the whole county. 4.
54. How many saddlers and harness-makers in the whole county. 13.
57. How many sash, door, and blind makers in the whole county. 12.
59. How many shoe-makers in the whole county. 14.
60. How many soda works employés in the whole county. 1.
62. How many tailors in the whole county. 35. Wages paid, maximum, $3 50; minimum, $2 25.
63. How many tanners in the whole county. 2.
64. How many tinsmiths in the whole county. 5.
65. How many upholsterers in the whole county. 3. Wages paid, $2 50.
67. How many wine manufacturers in the whole county. 13.

FORM NO. 4. RELATING TO TRANSPORTATION ON LAND AND WATER (CHINESE EXCLUDED

1. How many miles of steam railroads in operation are in your county. 28.
7. How many conductors are engaged thereon in your county. 1.
11. How many stage drivers in your county. 4.
13. How many draymen hauling, etc., in your county. 7.
14. How many agents, railroad, stage, express, and steamboat, in your county. 1.

FORM NO. 5. RELATING TO CLERICAL AND ALL OTHER SKILLED AND UNSKILLED LABOR NOT BEFORE ENUMERATED (CHINESE EXCLUDED).

1. How many auctioneers are employed in your county. 1.
4. How many barbers are employed in your county. 10.
7. How many clerks are employed in banking institutions in your county. 3.
10. How many clerks employed in general merchandising in your county. 50.
13. How many dentists are employed in your county. 4.
15. How many draymen are employed in your county. 6.
24. How many journalistic editors in your county. 2.
25. How many journalistic reporters in your county. 2.
36. How many photographers are employed in your county. 2.
37. How many school teachers are employed in your county. 49. Males, 15; females, 34. Hours constituting a day's work, 6. Average number of months engaged per annum, 7. Wages paid, males, maximum, $150; minimum, $50; average, $75. Wages paid, females, maximum, $100; minimum, $40; average, $60; without board.
40. How many telegraph operators are employed in your county. 2.
41. How many telegraph messenger boys are employed in your county. 1.
43. How many watch-makers are employed in your county. 3.

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